

# Buyer's Guide

A Concept That Was Never Known, Cross References

▣ AIRCRAFT DE-PAINTING & RE-PAINTING

Pages:1-13

▣ LINE MAINTENANCE PRODUCTS

Pages:143-161

▣ PLASTIC MEDIA

Pages:14-16

▣ AEROSPACE CORROSION INHIBITORS & CONTACT CLEANERS

Pages:17-19

▣ ADHESIVES, CONTACT CLEANERS, RETAINING COMPOUNDS, SEALANTS & GASKETING

Pages:20-34

▣ ARDROX AV CORROSION INHIBITORS

Pages: 35

▣ AEROSPACE POLYSULFIDE SEALANTS

Pages:36-39

▣ AEROSPACE POLYSULFIDE SEALANTS REMOVER

Page:40

▣ COATINGS FOR TURBINE & AERO ENGINES PRODUCTION AND OVERHAUL

Pages:41-56

▣ AIRCRAFT EXTERIOR & INTERIOR PAINTS

Pages:57-59

▣ PPG AEROSPACE COATINGS

Pages:60-63

▣ AEROSPACE COATINGS CROSS REFERENCE

Pages:64-70

▣ NDT PRODUCTS

Pages:71-107

▣ AEROSPACE PERFORMANCE TAPES

Pages:108-110

▣ OIL, LUBRICANTS & GREASES

Pages:111-116

▣ EQUIPMENT INTEGRATED CLEANING SOLUTION

Pages:117-124

▣ AEROSPACE CLOTHS, WIPES & PROTECTIVE CLOTHING

Pages: 125-142

▣ AIRCRAFT CARPETS

Pages: 162-172

▣ AIRCRAFT SEAT COVER & FABRIC

Pages: 173-175



SEALANTS



PPG Aerospace  
PRC-DeSoto



Nitto



Testori  
Fabrics made in Italy  
since 1904







**Look Who is Coming to ACC**



**SURFACE TREATMENT CHEMICALS PRODUCED BY ACC**

No.	ACC PRODUCT DESIGNATION	Concentration	ACC PRODUCT GROUP / DESCRIPTION	ACC PRODUCTS CONFORM TO SPECIFICATIONS	ACC PRODUCTS POSSIBLE CROSS REFERENCE TO			PACKAGE
					ARDROX / ANAC PRODUCTS	TURCO/ MAPAERO PRODUCTS	CEE BEE / PPG ZOK / B&B PRODUCTS	
1	ACC 1100	rtu	Neutral Paint Stripper	AMS 1375B	ARDROX 2526	TURCO 5351 THICK	A-234 R-256	25 KG
2	ACC 1110	rtu	Neutral Paint Stripper (Tank Type)	AMS 1378A	ARDROX 266 ARDROX 666/6	THIN TURCO 5351	A-215	25 KG
3	ACC 1111	rtu	Tank Type Paint Stripper Sodium Chromate Free	Boeing D6-17487 Corrosion Requirement of MIL-PRF-83936C	ARDROX 266 ARDROX 666/6	TURCO 5351	A-215	25 KG
4	ACC 1115	c	Diphase Liquid Paint Stripper for Hot Tank	MIL-PRF-83936B	ARDROX 2302	TURCO STRIPPER 668	A-477	25 KG
5	ACC 1120	rtu	Neutral Peroxide Paint Stripper	AMS 1377 Boeing D6-17487 Rev. R	ARDROX 2870 ARDROX 2871	TURCO 6930	E-3000 E-3000M E-2060	25 KG
6	ACC 1140	rtu	Environmentally Advantaged Hydrogen Peroxide Activated Paint Remover	TT-R-2918 TYPE 1	ARDROX 2870 ARDROX 2871	TURCO 6881	E-3000 E-3000M E-2060	25 KG
7	ACC 1150	rtu	Non Phenolic, Non Chromate, Acid Activated Paint Remover	AMS 1376 MIL-R-81903A	ARDROX 2608 ARDROX 2814	TURCO 6017	R-206 E-204B	25 KG
8	ACC 1160	rtu	Non Phenolic, Non Chromate Paint Remover	AMS 1375, DPM-5649	ARDROX 204 ARDROX 2106HV	TURCO 5873 NC	A-292 A-292NC	25 KG
9	ACC 1170	rtu	Acid Activated Paint remover	AMS 1376	ARDROX 2814	TURCO 5065	A-202	25 KG
10	ACC 2200	c	All Purpose Interior And Exterior Aircraft Cleaner	AMS 1550B AMS 1526C	ARDROX 1900B	TURCO 5948 DPM	SUPER BEE 210	25 KG
11	ACC 2201	c	Aircraft Interior Cleaner	AMS 1550B	NONE	TURCO 5567D	NONE	25 KG
12	ACC 2210	c	All Purpose Cleaner	AMS 1550B AMS 1526C	ARDROX 1900B	MAGNUS 149 X-AERO	INTEX 8201	25 KG
13	ACC 2220	c	Heavy Duty Exterior Aircraft Cleaner	MIL-PRF-85570E TYPE II	ARDROX 1900C	TURCO 6871	SUPER CEE BEE CLEANER 280	25 KG
14	ACC 2230	c	Aircraft Wheel Cleaner	AMS 1537B	ARDROX 6333	TURCO LIQUID SPRAYEZE NP-LT	SUPER BEE 300 IF	25 KG
15	ACC 2240	c	Aircraft Carpet Cleaner	AMS 1630C	ARDROX 485R	TURCO RUG SHAMPOO	NONE	25 KG
16	ACC 2250	c	Aircraft Ferrous And Non Ferrous Cleaner And Deoxidizer	AMS 1384	ARDROX 1218	TURCO 4409	CEE BEE C-623	25 KG





# ACC PRODUCTS LIST CROSS REFERENCE



## SURFACE TREATMENT CHEMICALS PRODUCED BY ACC

No.	ACC PRODUCT DESIGNATION	Concentration	ACC PRODUCT GROUP / DESCRIPTION	ACC PRODUCTS CONFORM TO SPECIFICATIONS	ACC PRODUCTS POSSIBLE CROSS REFERENCE TO			PACKAGE
					ARDROX / ANAC PRODUCTS	TURCO/ MAPAERO PRODUCTS	CEE BEE / PPG ZOK / B&B PRODUCTS	
17	ACC 2300	c	Aircraft Exterior Aluminum Polish	AMS 1650C DPM-5208 CSD No.17	ARDROX 6017	TURCO 1495 LH	INTEX 8046	10 KG
18	ACC 3300	c	Toilet Disinfectant/ Deodorant Liquid Type Concentrated	AMS 1476C	ARDROX 1823	TURCO BIOFRESH	HONEY BEE 60	25 KG
19	ACC 3310 RTU	rtu	Toilet Disinfectant/ Deodorant Ready To Use Liquid	AMS 1476C	ARDROX 1823 ARDROX 666/6	TURCO BIOFRESH RTU	HONEY BEE 60	BOX 4X5 KG
20	ACC 3320	rtu	Aircraft Toilet Descaler	AMS 1640C	NONE	TURCO AA-10	HONEY BEE CLEANER 60	BOX 12 BOTTLE OF 1 KG
21	ACC 3330	c	Toilet Disinfectant/ Deodorant Sachet Type	AMS 1476B	ARDROX 1809	TURCO ATD II	HONEY BEE PAK 44	200 SACHET Each 20 Gr
22	ACC 3340	c	Aircraft Interior All Purpose Hygiene	AMS 1550B Boeing D6-7127	NONE	TURCO AIRCRAFT DISINFECTANT	HONEY BEE CLEANER 90	25 KG
23	ACC 4400	c	Solvent	MIL-PRF-680C TYPE II	ARDROX 5503	TYPE II TURCO PD 680	NONE	19 KG
24	ACC 4410	c	Solvent	AMS 1525D	NONE	TURCO 4460	PPG CN44	20 LIT
25	ACC 4420-4	c	Solvent MEK Replacement	-	-	-	-	25 LIT
26	ACC 4420-100	c	Solvent MEK Replacement	-	-	-	-	25 LIT
27	ACC 5500	c	Compressor Cleaner	MIL-PRF-85704C TYPE I	ARDROX 252L	TURCO 5884	R-674 B&B 3100	25 KG
28	ACC 5510	c	Compressor Cleaner	MIL-PRF-85704C TYPE II	ARDROX 6375 ARDROX 6367	TURCO 6783	ZOK 27 EZE 206MS	25 KG
29	ACC Abrasive Pads	rtu	Abrasive	MIL-A-9962A TYPE I	NONE	NONE	NONE	PACKED PER 60 PADS EACH PAD: 6"X9"
30	ACC WS-3	c	One Component Aircraft Interior Coating	BMS 10-83 TYPE VI	NONE	NONE	NONE	1 Gallon
31	ACC WP 4004	c	Washprimer	BMS 10-72 TYPE 5 AIMS 04-04-012 (TN 10.113)	METAFLEX FCR PRIMER	NONE	P-99	5 LIT
32	ACC PP 5005	c	High Solid Polyurethane Primer	AMS 3095A	37047 CF PRIMER	9014-B	CA7700	1 LIT 4 LIT
33	ACC UHS-PT 6006	c	High Solid Polyurethane Topcoat	AMS 3095A	AVIOX 77702	A-1000	CA8000,CA8800 CA9000 series	5 LIT 20 LIT

33 high quality surface treatment & Coatings produced by AirChem Consumables (ACC) with incredibly low prices that no MRO, FBO facilities should be without.





# Permacel®

A NITTO DENKO COMPANY

## P-11 ALUMINUM FOIL TAPE

### APPLICATION

A dead soft aluminum foil tape engineered to handle a wide range of industrial and aerospace application.

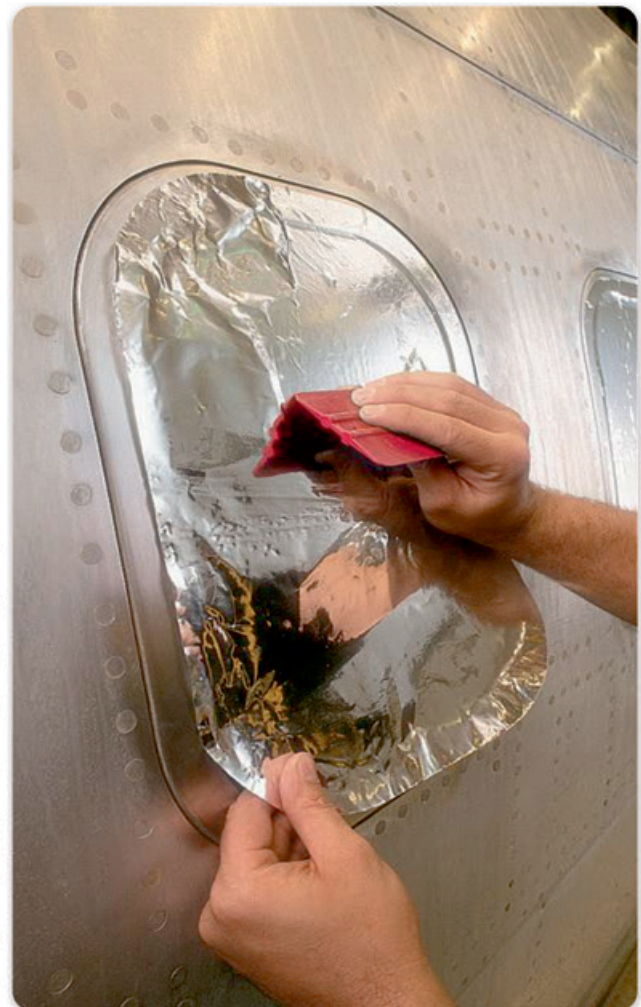
P-11 offers the ultimate in moisture vapor protection. Highly recommended for waterproof sealing of drums and canisters, edge sealing of double-pane therm windows, and for heat shielding and elimination of "hot spot" in small appliances.

Also used as a mask for paint stripping and electro-plating operations and for sealing duct joint in heating and air-conditioning systems. And, in the refrigeration industry, P-11 is used as a condenser and evaporator fastener.

During aircraft stripping work, P-11 is used as a window mask and protective covering of critical parts against stripping compounds. It's also used to hold protective drapes in place during stripping, and to form a channel for diverting the wash-off of paints and chemicals.

### FEATURES AND BENEFITS

- ➊ Aggressive, custom-formulated adhesive adheres tightly when smoothed down on work surfaces.
- ➋ Permits clean and easy removal with no residue.
- ➌ Dead soft aluminum foil backing provides excellent conformability. Easy to handle, easy to apply and readily conforms to irregular surfaces.
- ➍ Acrylic adhesive/foil backing construction make for a vapor-tight seal that effectively combats moisture, contamination and corrosion.
- ➎ Aging is practically non-existent because of the inherent stability of aluminium, foil.




### TECHNICAL DATA


Backing material	Dead soft aluminum foil
Adhesive	acrylic
Foil thickness	3.0 mils/0.076 mm
Total tape thickness	5.0 mils/0.127 mm
Adhesion to steel	60 oz per in./670 gm per cm
Tensile strength	29 lbs. per in./5.18 kg per cm
Elongation	5.5%
Gov't specification	L-T-80B, MIL-T-23397B



## ACC 1100 Chemically Neutral Paint Remover

<b>Product Group</b>	<b>Paint remover</b>	
<b>Description</b>	ACC 1100 removes cured two component epoxy and polyurethane coatings from metal substrates.	
<b>Characteristics</b>	Ready to use, chemically neutral.	
	Applied by non-atomizing spray, brush.	
	Can be applied on high strength steel.	
	Can be removed with cold water.	
	Not to be applied on substrates sensitive to chlorinated hydrocarbons.	
	Nonflammable	
	Use at room temperature.	
<b>Specification</b>	AMS 1375B	
<b>Application</b>	Apply a thick layer with ACC paint stripper pump, specially manufactured for this purpose.	
	Leave the remover enough time to attack the coating.	
	Re activate with stiff brushes.	
	Clean mixture of ACC 1100 and coating with high pressure water.	
<b>Toxicity and Hazards</b>	Before use always refer to <a href="#">MATERIAL SAFETY DATA SHEET</a> for precautionary, handling and first aid information.	
	Protective clothing, made from solvent resistant materials, must be worn when working with this paint remover.	
	May cause eye and skin irritation.	
	Avoid exposure to high concentrations of vapor.	
	Use with adequate ventilation.	
	Do not use where ignition sparks may occur because of hazardous gasses.	
	Be careful when opening containers to avoid spurting of contents.	
	Dispose of ACC 1100 mix with paint residues per applicable regulations. Refer to <a href="#">MATERIAL SAFETY DATA SHEET</a> for additional disposal information.	
<b>Storage</b>	Store in closed container at temperatures between 5- 35°C.	<b>Shelf life/Packing</b> 12 Months/ 25 KG Pail

## ACC 1120 Peroxide Activated Paint Remover

<b>Product Group</b>	<b>Paint remover</b>	
<b>Description</b>	ACC 1120 removes cured two component epoxy and polyurethane coatings.	
<b>Characteristics</b>	Activated by hydrogen peroxide.	
	Can be used on most metal parts.	
	Can be used on titanium and high strength steel.	
	Do not use on magnesium and cadmium parts.	
	Low waste disposal costs.	
	Works well on vertical and overhead areas.	
<b>Specification</b>	AMS 1377, Boeing D6-17487 Rev. R	
<b>Application</b>	Wash the aircraft using ACC 2200 or ACC 2220 in order to get clean, dirt and grease free surface.	
	Apply ACC 1120 by ACC ASP pump and leave a layer with 5 mm thickness. The layer should be homogeneous and evenly dispersed all over the surface.	
	Allow the paint remover to react with paint for 2-10 hours /In case of old painting system, let paint stripper lay on surface for longer period of time.	
	Clean with high pressure cold water. Repeat the same steps for spots removing.	
<b>Toxicity and Hazards</b>	Use a soft bristle or a scraper to remove the loosen paint from surface.	
	Before use always refer to <a href="#">MATERIAL SAFETY DATA SHEET</a> for precautionary, handling and first aid information.	
	Protective clothing, made from solvent resistant materials, must be worn when working with this paint remover.	
	May cause eye and skin irritation.	
	Avoid exposure to high concentrations of vapor.	
	Use with adequate ventilation.	
	Be careful when opening containers to avoid spurting of contents.	
	Dispose of ACC 1120 mix with paint residues per applicable regulations. Refer to <a href="#">MATERIAL SAFETY DATA SHEET</a> for additional disposal information.	
<b>Storage</b>	Store containers at a temperature between 5– 35°C.	<b>Shelf life/Packing</b> 9 Months / 25 KG Pail



## EMPLOYING NEW GENERATION ENVIRONMENTALLY-ADVANTAGED PAINT REMOVERS



1

### EXTERIOR CLEANING

Cleaning the aircraft prior to paint-removal generally yields the most effective and consistent results, and is thus considered an indispensable preliminary step.

Though the use of any appropriate aircraft exterior cleaner may be possible, on top of all we recommend the **ACC 2200** at 10-25% by volume of water.

The prepared solution is then to be applied by spray, mop or brush and then followed by a thorough warm to hot water rinse, in order to prepare the surface for stripping.

At this stage the aircraft surface will have become free of all kinds of physical soil and once totally dry, it is ready for taping and masking.

2

### COVERING

Regardless of the type of paint-remover utilized, the sections that require covering should ideally be taped using appropriate non-flying tapes such as the **Permaccel P-11** and **P-11 L**.

Some of the importantly sensitive sections to cover in your aircraft include:

- ◆ Windows
- ◆ Composite structures
- ◆ Pitot tube
- ◆ Steel clamps
- ◆ Doors and access ports
- ◆ Wheel well areas
- ◆ Landing gear and struts

However it is vital that any other part of the aircraft providing routes to the interior and particularly that to the engine, be properly covered and protected prior to the Paint-removal process.



3

### PAINT STRIPPING

Using a stainless steel/TEFLON lined paint stripper transfer pump fitted with a stainless steel airless spray wand, and a 6510 or 9520 non atomizing tip, apply the first layer of the appropriate paint-stripper (the mist coat) to the aircraft. The appropriate type is to be selected through consulting the manual of the respective aircraft. Recommended approved types, suiting various aircraft requirement include:

- ACC 1100
- ACC 1120

Having applied the mist coat, allow a dwelling time of 30-60 minutes for an initial softening and swelling effect to the paint (signified by bubbles formed on the fuselage), and for facilitating the application of further stripper layers. Afterwards, apply the next full uniform layer of 100-200 microns thickness and allow sufficient time for the remover to work. About an hour before the end of the dwell time, the aircraft surface should be totally agitated with stiff bristly brushes to provide mechanical acceleration and increased efficiency to the process.

The pressure at the nozzle tip of the paint-stripper spraying machine must be approximately 1.5-2 Bars. For paint stripping, start the process from the bottom part of the aircraft and lowest section relative to the horizontal axis of the aircraft, towards both directions, nose and tail. For removal of paint on the surfaces below the wings, apply the stripper on surfaces of the aircraft fuselage at which the wings are attached, as well as to the wingtips.

The last region to undergo the paint-stripping process is the rear section (empennage) of the aircraft, containing the fixed vertical and horizontal stabilizers. Having allowed the stripper on the aircraft fuselage for the required amount of time, ideally the aircraft paint is now essentially chipped and using a squeegee, should be let to descend on the ground. However, if by this stage, the paint removal process is incomplete and unsatisfactory; all the steps mentioned above, with the exception of (mist coat application) have to be repeated until the aircraft paint removal has been effectively accomplished.



## EMPLOYING NEW GENERATION ENVIRONMENTALLY-ADVANTAGED PAINT REMOVERS

EXTERIOR CLEANING

COVERING

PAINT STRIPPING

PARTIAL PAINT-REMOVAL

AFTER-STRIP CLEANING

4

### PARTIAL PAINT REMOVAL

Once the aircraft's surface has been predominantly stripped of paint, the partial paint-removal stage is undertaken.

In this stage, any type of residual paint spot is eliminated. Surfaces covered with **Permacel** tapes that need to be stripped of paint are removed. This is mainly done by hand (usually through brush application), and then followed by scrubbing and scraping with

#### ACC ABRASIVE PAD.

Once stripping is complete, squeegee the stripper residues and paint chips. These are to be pushed on the floor and gathered up in open-top sealable drums for disposal as hazardous waste. For spot paint stripping you may use **ACC 1100**.



5

### AFTER-STRIP CLEANING

Finally the aircraft is to be washed again with **ACC 2200** and allowed to dry, if it is not intended for conversion coating and/or corrosion removing.

For this stage, it is first necessary to divide the aircraft into equal and consecutive sections, each of typically 6 meters length (considering available manpower and equipment).

*A very crucial and delicate point to consider in this stage is that the cleaning solution must never be let to dry up on the surface!*

Apply the cleaning solution relative to the aircraft's horizontal axis, in the direction of the "Crown" and towards the two ends of the aircraft. After the application of cleaning solution, scrape the intended surface thoroughly using heavy duty

#### ACC ABRASIVE PAD

After scraping, carefully rinse the surface to be cleaned using a high pressure stream of warm water in large quantity.

Continue the cleaning process from up to down & vice-versa.

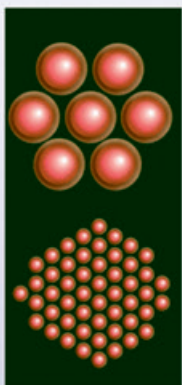
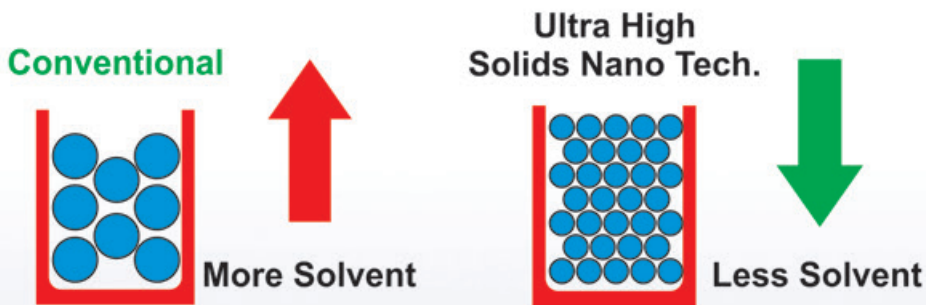


CUT YOUR PAINT STRIPPING JOB IN HALF WITH ACC PAINT STRIPPING PRODUCTS



## Ultra High Solids Nano Technology Chrome Free Exterior Paint System VS Conventional Coatings

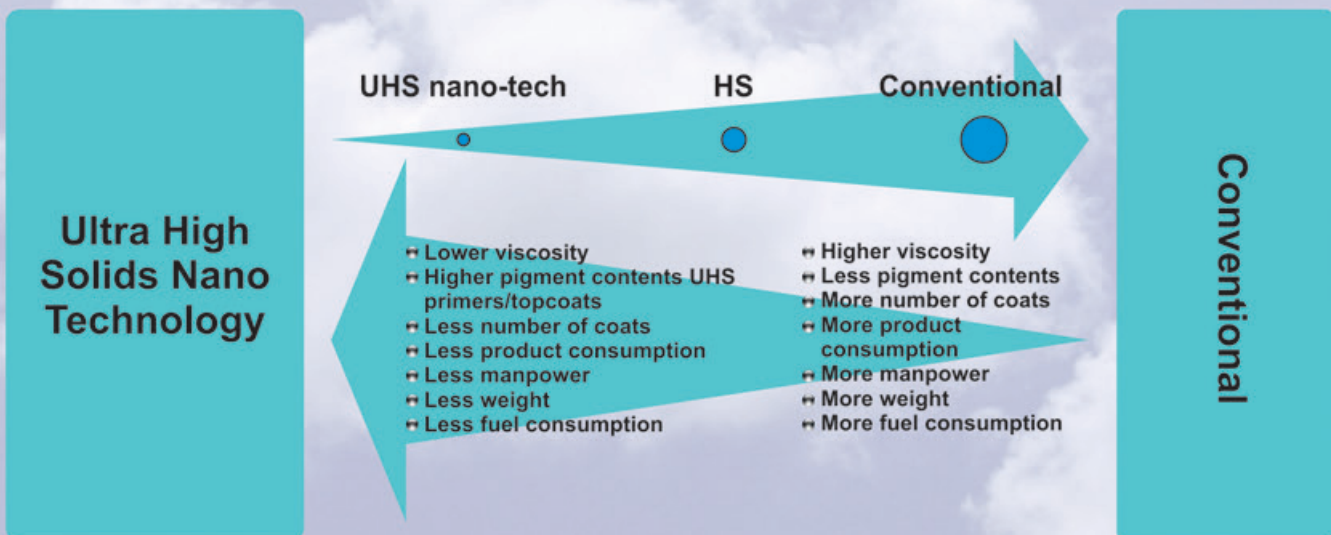
### Resin molecular size and bonds.



Resin molecular size

- Conventional**
  - ☛ Less molecular net bonds
  - ☛ Less hiding power
  - ☛ Less filiform corrosion protection
- Ultra High Solids Nano technology**
  - ☛ More molecular net bonds
  - ☛ More hiding power
  - ☛ Better filiform corrosion protection

### Ultra High Solids Nano Technology





### Ultra High Solids Chrome Free Nano Technology Paint System Features:

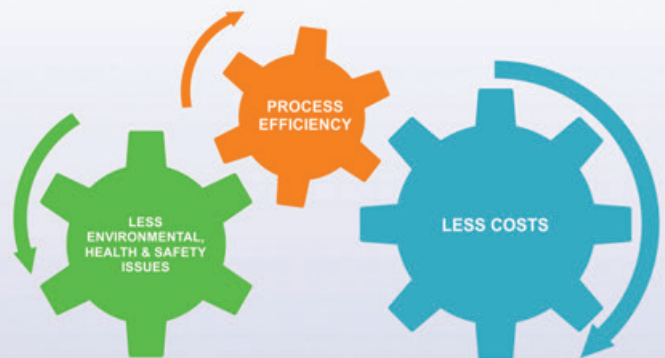
- Highest quality of corrosion protection
- Environmental sustainability
- Cost effectiveness
- Less residual disposal costs than chrome containing materials



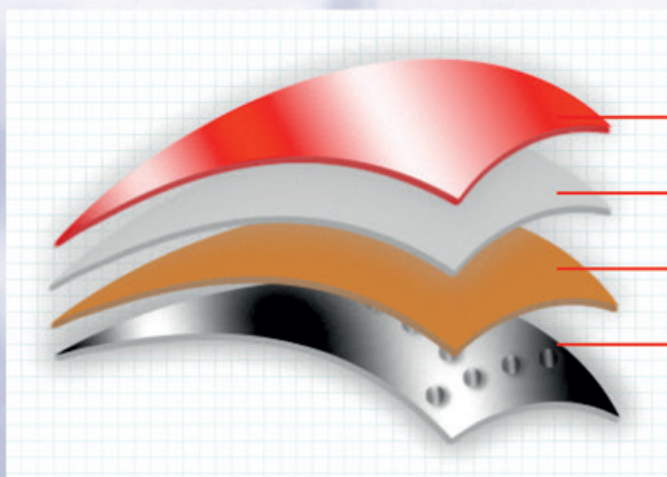
- Non corrosive, Non toxic



- 50% VOC reduction obtained in average compared to conventional chrome containing products.
- Full REACH compliance.
- Less Health and Safety hazards during sanding application due to Chrome Free formulation.



## UHS Chrome Free Paint Scheme AMS 3095A



- Direct Gloss Topcoat ACC-UHS-PT-6006
- Chrome Free High Solids Primer ACC-PP-5005
- Wash Primer ACC-WP-4004
- 2024 clad abraded Substrate



## UHS Chrome Free Paint Scheme Application

ACC-WP-4004 (switch-off electrostatic)

07 -10 µm 1 coat



ACC-PP-5005



3h for sanding,  
1h over-coating time  
wet-on-wet 22°C / 60% RH.

25-35 µm ,1 cross coat

ACC-UHS-PT-6006 High Gloss Topcoat

NO INDUCTION TIME REQUIRED

50-60µm in 2 coats  
1h between coats

## ACC-UHS PT 6006 Fully Conforms to AMS 3095A

### New UHS Chrome Free Paint Scheme AMS 3095A requirements

Substrate	implement Test	Conditions	AMS 3095A requirement	Results
2024 clad abraded	Adhesion ISO2409	-	G=0	G=0 PASS
2024 clad abraded	Water resistance ISO2812-2	14 days @ 23°C	G=1 max	G=0-1 PASS
2024 clad abraded	Skydrol resistance ISO1518	30 days @ 23°C	1500g min	> 2000 g PASS
2024 clad abraded	Filiform corrosion EN3665	1000h	3mm max filament from scribe	2- 2,6 mm PASS
2024 clad abraded	Neutral Salt Spray ISO7253	3000h	3mm max creep from scribe	1- 2,5 mm PASS



## Technical Data Sheets

### ACC WP 4004 Wash Primer

**Product Group** - Washprimer

**Description** - ACC WP 4004 washprimer is designed for use on aircraft aluminium substrates and other equipment in combination with the additional primer ACC PP 5005 to obtain optimal filiform corrosion resistance.

**Characteristics** - Application of ACC WP 4004 replaces the use of Alodine or Alochrome

Appearance	Semigloss, brown/yellow
Theoretical Coverage	At 7-10 microns 8 sqm p/L base
Viscosity mixed RT and RH 30-70%	16-18 seconds AFNOR cup 4 13-16 seconds DIN cup 4 15-17 seconds FORD cup 4
Pot life when mixed RT and RH 30-70%	8 hours
Drying times RT and RH 30-70%	Dust free: 15-20 minutes Dry for next coat: 1.5-2.0 hours Dry to tape: 2-24 hours
Mixing ratio Volume	1:1 with Activator(Hardener) ACC ACT 1004 Stir ACC WP 4004 till uniform liquid. Add Activator (Hardener) ACC ACT 1004 and stir till homogeneous.

**Specification** - AIMS 04-04-012 (TN 10.113)  
BMS 10-72 type V

**Surface preparation & application** - Clean the area to be painted with ACC 2220 to remove all contamination.  
Scuff sand with ACC Abrasive pads  
Clean again with ACC 2220.  
Apply a wet coat of mixed ACC WP 4004 resulting in a dry thickness of 7-10 micron.

**Application Equipment** - **Conventional Air Spray**  
Atomizing Air pressure: 43,50 to 72.50 psi  
Pot pressure (if applicable): 21 to 29 psi  
Tip Size: 1.2 to 1.5 mm (0.046 to 0.059 inch)  
**Air Assist Airless, Switch off electrostatic.**  
Fluid pressure: 1400 to 1850 psi  
Atomizing Air pressure: 43.50 to 72.50 psi  
Tip Size: 0.23 to 0.28. mm (0.009 to 0.011 inch)  
**HVLP**  
Input Air pressure: 21 to 29 psi  
Fluid/Pot pressure: 21 to 29 psi  
Tip Size: 1.5 to 1.8 mm (0.059 To 0.071 inch)  
**Airless**  
Fluid pressure: 870 psi to 1450 psi  
Tip size: 0.22 to 0.28mm (0.009 to 0.011 inch)

**Cleaning of equipment** - Use Thinner ACC DIL 5011 or ACC 4400

**Shelf life and Packaging** - 24 months from date of manufacturing.  
After opening the tins, it should be used within 2 months.  
ACC WP 4004 is delivered in 5 L cans.

**Health, safety, environment** - Use with adequate ventilation and proper respiratory protection.  
See MSDS for complete details of composition and precautions.

HS/GN code: 3208 10 90

HS/GN code for Thinner ACC DIL 5011 = 3814 0090

### ACC PP 5005 Polyurethane Primer

**Product Group** - Polyurethane Primer

**Description** - ACC PP 5005 chromate free polyurethane primer is a high solids, very flexible, easy to sand, anticorrosion primer with high chemical resistance.

**Characteristics** - On aluminum substrates ACC PP 5005 should be applied on top of ACC WP 4004, but it can also be sprayed directly on composite materials as a spray filler.

Appearance	Standard grey, colors on request
Theoretical Coverage	At 25 -30 microns: 20-22 sqm p/L base.
Viscosity mixed RT and RH 30-70%	As anti corrosion primer: 17-23 seconds AFNOR cup 4 15-19 seconds DIN cup 4 15-21 seconds FORD cup 4 As spray filler: 84-100 seconds AFNOR cup 4 65-72 seconds DIN cup 4 78-88 seconds FORD cup 4
Pot life when mixed RT and RH 30-70%	2 hours
Drying times RT and RH 30-70%	As anti corrosion primer: Dust free: 20 minutes Dry for next coat: 1hour Dry to tape: 3 hours As spray filler: Dust free: 20 minutes Dry for next coat: 1hour Dry to sand: 3-4 hours Dry to tape: 3 hours
Mixing ratio Volume	As anti corrosion primer: Mix 4 parts of ACC PP 5005 with 1 part of Activator (Hardener) ACC ACT 1001, stir well and add 1 part Thinner ACC DIL 5020 Stir till homogeneous. As spray filler: Mix 4 parts of ACC PP 5005 with 1 part of Activator (Hardener) ACC ACT 1001, stir well till homogeneous

**Specification** - AMS 3095A

**Surface preparation & application** - As anticorrosion primer  
Apply one even wet cross coat of ACC PP 5005 directly on ACC WP 4004 within 8 hours.  
As spray filler  
Apply ACC PP 5005 in 1-2 uniform coats directly on top of cleaned and sanded composites using ACC 2220 and ACC Abrasive pads.

**Application Equipment** - **Conventional Air Spray**  
Atomizing Air pressure: 44 to 72 psi  
Pot pressure (if applicable): 22 to 36 psi  
Tip Size: 1.2 to 1.6 mm (0.046 to 0.063 inch)  
**Air Assist Airless, Electrostatic**  
Fluid pressure: 725 to 870 psi  
Atomizing Air pressure: 44 to 50 psi  
Tip Size: 0.22 to 0.27 mm (0.011 to 0.013 inch)  
**HVLP**  
Input Air pressure : 21 to 29 psi  
Fluid/Pot pressure: 21 to 29 psi  
Tip Size: 1.5 to 1.8 mm (0.059 To 0.071 inch)  
**Airless**  
Fluid pressure: 870 psi to 1450 psi  
Tip size: 0.22 to 0.28mm (0.009 to 0.011 inch)

**Cleaning of equipment** - Use Thinner ACC DIL 5020 or ACC 4400

**Shelf life and Packaging** - 24 months from date of manufacturing.  
After opening the tins, it should be used within 2 months.  
ACC PP 5005 is delivered in 4 L cans.

**Health, safety, environment** - Use with adequate ventilation and proper respiratory protection.  
See MSDS for complete details of composition and precautions.

HS/GN code: 3208 10 90

HS/GN code for Thinner ACC DIL 5020 = 3814 0090



## Technical Data Sheets

# ACC UHS PT 6006

<b>Product Group</b>	Ultra High Solids Polyurethane Topcoat												
<b>Description</b>	ACC UHS PT 6006 is designed for the protection and decoration of the aircraft exterior. ACC UHS PT 6006 is easy to apply, has excellent UV and abrasive resistance and may be polished if needed after full cure.												
<b>Characteristics</b>	<table border="1"> <tr> <td>Appearance</td> <td>High gloss, semigloss and matt in any color of international standard.</td> </tr> <tr> <td>Theoretical coverage</td> <td>At 25-35 microns: 20 m/L BASE.</td> </tr> <tr> <td>Viscosity mixed RT and RH 30-70%</td> <td>17-31 seconds AFNOR cup 4 17-27 seconds DIN cup 4 15-25 seconds FORD cup 4</td> </tr> <tr> <td>Pot life when mixed RT and RH 30-70%</td> <td>2 hours</td> </tr> <tr> <td>Drying Times RT and RH 30-70%</td> <td>Dust free 15-25 minutes Dry for next coat 15-45 minutes Dry to tape 3 - 4 hours Dry to fly 48 hours Full cure 7 days</td> </tr> <tr> <td>Mixing Ratio Volume</td> <td>Mix 4 parts of ACC UHS PT 6006 with 2 part of Activator(Hardener) ACC ACT 1003, stir and add 1 part of Thinner ACC DIL-5020 till homogeneous.</td> </tr> </table> <p>Note: Depending on the mode of application and environmental conditions select correct hardener Activator (Hardener) ACC ACT 1002_Fast; Activator (Hardener) ACC ACT 1003_Standard; Activator(Hardener) ACC ACT 1005_Slow.</p>	Appearance	High gloss, semigloss and matt in any color of international standard.	Theoretical coverage	At 25-35 microns: 20 m/L BASE.	Viscosity mixed RT and RH 30-70%	17-31 seconds AFNOR cup 4 17-27 seconds DIN cup 4 15-25 seconds FORD cup 4	Pot life when mixed RT and RH 30-70%	2 hours	Drying Times RT and RH 30-70%	Dust free 15-25 minutes Dry for next coat 15-45 minutes Dry to tape 3 - 4 hours Dry to fly 48 hours Full cure 7 days	Mixing Ratio Volume	Mix 4 parts of ACC UHS PT 6006 with 2 part of Activator(Hardener) ACC ACT 1003, stir and add 1 part of Thinner ACC DIL-5020 till homogeneous.
Appearance	High gloss, semigloss and matt in any color of international standard.												
Theoretical coverage	At 25-35 microns: 20 m/L BASE.												
Viscosity mixed RT and RH 30-70%	17-31 seconds AFNOR cup 4 17-27 seconds DIN cup 4 15-25 seconds FORD cup 4												
Pot life when mixed RT and RH 30-70%	2 hours												
Drying Times RT and RH 30-70%	Dust free 15-25 minutes Dry for next coat 15-45 minutes Dry to tape 3 - 4 hours Dry to fly 48 hours Full cure 7 days												
Mixing Ratio Volume	Mix 4 parts of ACC UHS PT 6006 with 2 part of Activator(Hardener) ACC ACT 1003, stir and add 1 part of Thinner ACC DIL-5020 till homogeneous.												
<b>Specification</b>	AMS 3095												
<b>Surface preparation and application</b>	Apply two even wet coats on top of the cured ACC PP 5005 that may need a slight treatment with ACC Abrasive pads if drying time has exceeded 8 hours. As it concerns a high solid topcoat the film build up is different from standard topcoats. Attention is required not to apply too much coating to avoid sags and runs.												
<b>Application Equipment</b>	<p><b>Conventional Air Spray</b> Atomizing Air pressure: 45 to 60 psi Pot pressure (if applicable): 10 to 25 psi Tip Size: 1.2 to 1.6 mm (0.046 to 0.063 inch)</p> <p><b>Air Assist Airless, Electrostatic</b> Fluid pressure: 750 to 1250 psi Atomizing Air pressure: 40 to 60 psi Tip Size: 0.22 to 0.27 mm (0.011 to 0.013 inch)</p> <p><b>HVLP</b> Input Air pressure: 10 to 20 Psi Fluid/Pot pressure: 10 to 25 psi, Tip Size: 1,0 to 1,4 mm (0.039 To 0.055 inch)</p> <p><b>Airless</b> Fluid pressure: 870 psi to 1450 psi Tip size: 0.22 to 0.28mm (0.009 to 0.011 inch)</p>												
<b>Cleaning of equipment</b>	Use Thinner ACC DIL-5020 or ACC 4400												
<b>Shelf life and Packaging (RT)</b>	24 months from date of manufacturing. After opening the tins, it should be used within 2 months. ACC UHS PT 6006 is delivered in 4 L Cans.												
<b>Health, safety, environment</b>	Use with adequate ventilation and proper respiratory protection. See MSDS for complete details of composition and precautions.												

HS/GN code:3208 10 90

HS/GN code for Thinner ACC DIL 5020 = 3814 0090

### Notice

Because we cannot anticipate or control the many different conditions which this information and our products may be used, we do not guarantee the applicability and accuracy of this information or the suitability of our products in any given situation. Users of our products should make their own tests to determine the suitability of each product for their particular purposes.

TDS UHS PT 6006 - 3/16



## ACC WS-3 ONE/TWO COMPONENT INTERIOR COATINGS

### Advantages of ACC WS-3

- ☛ Excellent Adhesion
- ☛ Very good scratch and solvent resistance
- ☛ Stain resistance and easy to clean
- ☛ Semigloss, available in any color
- ☛ BMS 10-83, TYPE VI – DPM 5948

### Benefits of using ACC WS-3 as one component interior coatings

- Non hazardous shipment → Less shipment charges
- No mixing is required. → Easy to apply
- Water soluble → No thinner for cleaning equipment
- Safe to apply → No flammable hardener needed

Less expensive

### ACC WS-3 as two component Interior Coatings

**ACC AX-42** may be added to enhance chemical and scratch resistance for areas exposed to damage like cargo bays and galleys. Mixing Ratio: 8:1 (4 liter ACC WS-3 with 0.5 liter hardener AX-42)

#### Technical Data Sheets

### ACC WS-3

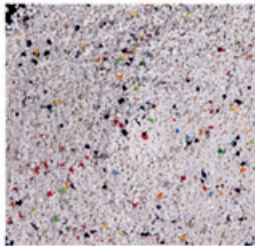
One Component  
Aircraft Interior Coating

<b>Product Group</b>	Polyurethane waterborne topcoat	
<b>Description</b>	ACC WS-3 is designed for application on different substrates of the aircraft interior. ACC WS-3 is easy to apply, has excellent adhesion, very good scratch and solvent resistance, good stain resistance and is easy to clean. For most areas this product is well suited, if improved performance is required, ACC Hardener AX-42 may be added.	
<b>Characteristics</b>	Appearance	Semigloss, in any color of international standard.
	Theoretical coverage	18 sqm/L base at thickness of 25 microns.
	Viscosity RT and RH at 30-70%	40-65 seconds ISO cup 6
	Pot life when mixed RT and RH at 30-70%	4 hours
	Drying Times RT and RH 30-70%	Dry to touch    30-60 minutes Tack free        1- 2 hours Dry hard         8 hours
	Mixing Ratio Volume if required	Mix 1 part of ACC Hardener AX-42 to 8 parts of ACC WS-3 by volume, by stirring. Do not use a shaker.
<b>Specification</b>	BMS 10-83 type VI DPM 5948	
<b>Application Equipment</b>	Any standard suction, pressure pot, HVLP or airless spray. Note: ACC WS-3 can be rolled with a foam roller which makes it easy to achieve a textured finish.	
<b>Cleaning of equipment</b>	Immediately after use clean with water, in a later stage acetone may be used to dissolve residues.	
<b>Shelf life and Packaging (RT)</b>	ACC WS-3 is delivered in 1 quart and 1 gallon kits.	
<b>Health, safety, environment</b>	Use with adequate ventilation and proper respiratory protection. See MSDS for complete details of composition and precautions.	

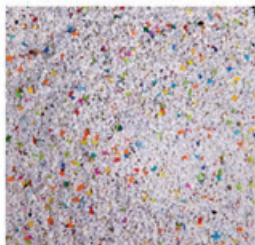
#### Notice

Because we cannot anticipate or control the many different conditions which this information and our products may be used, we do not guarantee the applicability and accuracy of this information or the suitability of our products in any given situation. Users of our products should make their own tests to determine the suitability of each product for their particular purposes.





Type II is made of fully (100 %) hardened UREA moulding parts. In further workflows it will filtered according to American standard mesh-sizes and moistened with a special anti-static agent



Type III is made of fully (100 %) hardened MELAMIN moulding parts. In further workflows it will filtered according to American standard mesh-sizes and moistened with a special anti-static agent. Due to the higher hardness compared to Type II it can achieve a higher blast media efficiency. The abrasive consumption is approx. 20 % less compared to the Type II.



Type V is made of fully (100 %) hardened ACRYLIC parts. In further workflows it will filtered according to American standard mesh-sizes and moistened with a special anti-static agent. It's suitable for the shot blasting of soft/thin nonferrous metals and composite parts. The Type V doesn't produce any harshness on soft metals and galvanic coatings with an approx. 10 % higher stripping rate compared to the Type II. The consumption of blasting media is approx. 50 % less than Type II.

Type II, Type III and Type V have been certified by the U.S. Air Force according to MIL-P-85891 and can be used for cleaning and paint stripping of surfaces in the aircraft industry and the military sector.

**Many other approvals on request.**

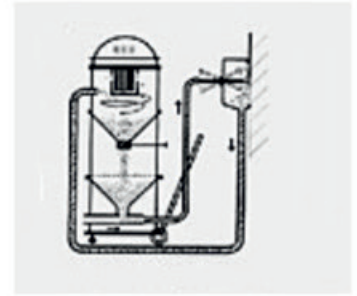




## Blast systems

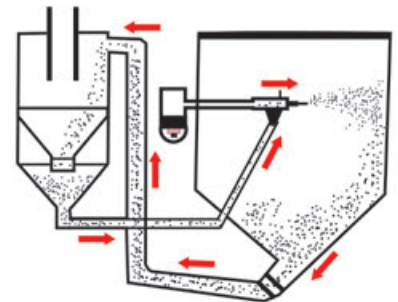
### VACUUM BLAST SYSTEM

6 mm nozzle at 47 l/sec. air pressure  
 Exit velocity: 80 m/sec  
 Blast media throughput: 25 kg/h  
 Blast media consumption: 0,4 kg/h  
 Air consumption (compressed air): 8 m<sup>3</sup>/min  
 Electric consumption: 4,2 kWh  
 Performance factor: 1 (corr. to blast media throughput)



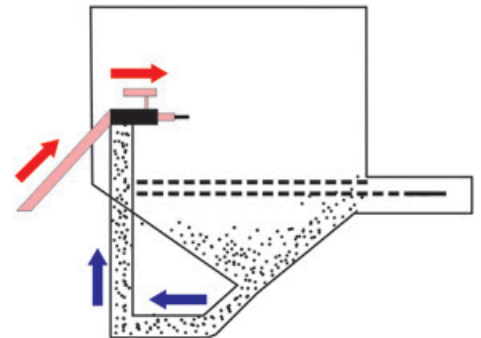
### INJECTION BLAST SYSTEM

8 mm nozzle at 4 bar air pressure  
 Exit velocity: 60-100 m/sec  
 Blast media throughput: 50 kg/h  
 Blast media consumption: 0,7 kg/h  
 Air consumption (compressed air): 0,5 m<sup>3</sup>/min  
 Electric consumption: 5,3 kWh  
 Performance factor: 2 (corr. to blast media throughput)



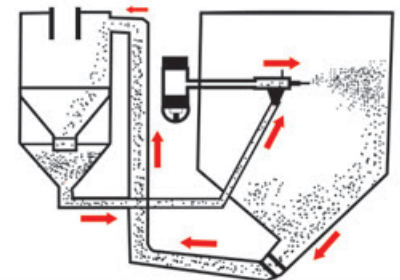
### WATER BLAST SYSTEM

8 mm nozzle at 4 bar air pressure  
 Exit velocity: 60-200 m/sec  
 Blast media throughput: 200 kg/h  
 Blast media consumption: 1-4 kg/h  
 Air consumption (compressed air): 2-5 m<sup>3</sup>/min  
 Electric consumption: 5-10 kWh  
 Performance factor: 8 (corr. to blast media throughput)



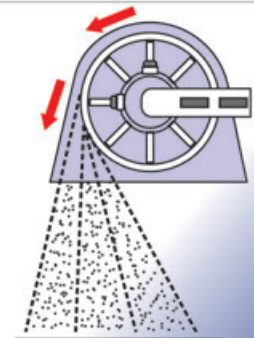
### PRESSURE BLAST SYSTEM

8 mm nozzle at 4 bar air pressure  
 Exit velocity: 150-250 m/sec  
 Blast media throughput: 250 kg/h  
 Blast media consumption: 4 kg/h  
 Air consumption (compressed air): 2,8 m<sup>3</sup>/min  
 Electric consumption: 11,4 kWh  
 Performance factor: 10 (corr. to blast media throughput)



### BLAST WHEEL SYSTEM


300 mm Ø  
 Exit velocity: 80 m/sec  
 Blast media throughput: 3600 kg/h  
 Blast media consumption: 30 kg/h  
 Air consumption (compressed air): – m<sup>3</sup>/min  
 Electric consumption: 7,5 kWh  
 Performance factor: 144 (corr. to blast media throughput)





PLASTIC BLAST MEDIA FOR THE PERFECT SURFACE



<b>PRODUCT OVERVIEW</b>   knusts toff-Strahlmittel - Plastic Blast Media	<b>TYPE II</b> (UREA + antistatic) Certified by the U.S. Air Force By <b>MIL-P-85891</b>	<b>TYPE III</b> (MELAMINE + antistatic) Certified by the U.S. Air Force By <b>MIL-P-85891</b>	<b>TYPE V</b> (ACRYLIC + antistatic) Certified by the U.S. Air Force By <b>MIL-P-85891</b>
--	---	--	---

**Colour**

white / multicolour	white / multicolour	light
---------------------	---------------------	-------

**Physikal Properties**

hardness Mohs / HRR	3,5 Mohs	4,0 Mohs	3,5 Mohs
Spec. weight (gr./cm <sup>3</sup> )	1,45 – 1,52	1,45 – 1,52	1,10 – 1,20
bulk density (gr./ltr.)	700 - 800	700 - 800	550 - 650
ignition temperature	> 500 °C	> 500 °C	> 100 °C

**Delivery Details**

properties	ripple granules	ripple granules	ripple granules
packed in PE-bags	25 kg / bag	25 kg / bag	20 kg / bag
packed in Fibre-Drums	50 kg or 125 kg / Drum	50 kg or 125 kg / Drum	40 kg or 100 kg / Drum
max. weight per palette	1.000 kg	1.000 kg	1.000 kg

**Standard-Sizes**

60 – 80 mesh 0,18-0,25 mm	X	X	
40 – 60 mesh 0,25-0,40 mm	X	X	X
30 – 40 mesh 0,40-0,60 mm	X	X	X
20 – 40 mesh 0,40-0,80 mm	X	X	X
20 – 30 mesh 0,60-0,80 mm	X	X	X
16 – 20 mesh 0,80-1,20 mm	X	X	X
12 – 20 mesh 0,80-1,70 mm	X	X	
12 – 16 mesh 1,20-1,70 mm	X	X	

**Special-Sizes**

on request	on request	on request
------------	------------	------------



## LUBRICANTS

### DRY FILM LUBRICANT



**NEW LOOK**

#### LPS 1® GREASELESS LUBRICANT



- Provides a dry, thin, lubricating film
- Resists oil, dust, and dirt build-up
- Fast acting penetration
- Loosens rusted or frozen parts
- Provides a short term, light, corrosion resistant barrier
- Ideal for delicate mechanisms
- Safe on paint and most plastics
- Nonfood Compounds Program Listed Category Code: H2 Registration #059847 (Aerosol); #129040 (Bulk)
- Acceptable for use in Canadian Food Processing Establishments

NET CONTENTS	LPS #
144 single towels per case	00144
11 wt. oz./312 g/379 mL	00116
20 fl. oz. (591 mL) Trigger	00122
1 gal. (3.78 L)	01128
5 gal. (18.93 L)	00105
55 gal. (208 L)	00155

### WET FILM LUBRICANT



**NEW LOOK**

#### LPS 2® HEAVY-DUTY LUBRICANT



- Strong, multi-purpose lubricant, and penetrant with added corrosion protection
- Provides a non-drying, light, oily film for use on indoor/outdoor equipment
- Reduces wear caused by friction and corrosion
- Loosens rusted or frozen parts
- Provides up to one year of protection
- Nonfood Compounds Program Listed Category Code: H2 Registration #129026 (Aerosol); #059848 (Bulk)
- Acceptable for use in Canadian Food Processing Establishments

NET CONTENTS	LPS #
11 wt. oz./312 g/379 mL	00216
20 fl. oz. (591 mL) Trigger	00222
1 gal. (3.78 L)	02128
5 gal. (18.93 L)	00205
55 gal. (208 L)	00255

## WAX AND RESIN-BASED, CORROSION INHIBITORS



- Nobody hates rust more than I do. That's why I use LPS 3 and LPS Cold Galvanize.



**NEW LOOK**

#### LPS 3® PREMIER RUST INHIBITOR



- Protects for up to 2 years indoors
- Prevents rust and corrosion
- Provides non-sling lubrication
- Self-healing, soft, waxy film
- Safe to use on most surfaces
- Nonfood Compounds Program Listed Category Code: H2 Registration #129027 (Aerosol); #059849 (Bulk)
- Acceptable for use in Canadian Food Processing Establishments

NET CONTENTS	LPS #
11 wt. oz./312 g/380 mL	00316
28 fl. oz. (828 mL) Trigger	00322
1 gal. (3.78 L)	03128
5 gal. (18.93 L)	00305
55 gal. (208 L)	00355



**NEW AEROSOL LOOK  
ARRIVING 2015**

#### PROCYON CORROSION INHIBITOR



- Protects aluminum from salt fog for more than 2,500 hours
- Multi-year protection of metal
- Durable, hard, transparent film
- Resistant to saltwater, salt spray, moisture, acid, alkali fumes and other corrosive elements
- Wide operating temperature range
- Resists dripping and puddling during spray application
- Ready-to-use and can be applied with conventional airless or air-operated spray equipment
- Safe to use on most surfaces

NET CONTENTS	LPS #
10 wt. oz./284 g/394 mL	04216
1 gal. (3.78 L)	04228
5 gal. (18.93 L)	04205
55 gal. (208 L)	04255



**NEW AEROSOL LOOK  
ARRIVING 2015**

#### HARDCOAT CORROSION INHIBITOR



- 1,500+ hours salt spray resistance on aluminum
- Commonly used on sides and tops of aircraft fuselages
- Resists dripping and puddling during spray application
- Durable, hard, transparent film
- Ready-to-use and can be applied with conventional airless or air-operated spray equipment
- Safe to use on most surfaces

NET CONTENTS	LPS #
10 wt. oz./284 g/396 mL	03316
1 gal. (3.78 L)	03328
5 gal. (18.93 L)	03305
55 gal. (208 L)	03355



## ZINC\_BASED CORROSION INHIBITOR



**NEW AEROSOL LOOK  
ARRIVING 2015**

### BRIGHTCOAT COLD GALVANIZE CORROSION INHIBITOR



- n Shiny zinc coating
- n Prevents rust and corrosion on all metals
- n Restores hot dip galvanizing
- n Dries to touch in 15 to 30 minutes
- n Repairs rusted, galvanized, and welded surfaces
- n Electrochemically protects bare metal
- n Heat resistant, flexible coating
- n Will not yellow, chalk, crack, or peel



**NEW AEROSOL LOOK  
ARRIVING 2015**

### COLD GALVANIZE CORROSION INHIBITOR



- n Zinc-rich galvanized coating - Zinc Purity: 99+%
- n Works like a hot-dip on ferrous metals indoors and out
- n Withstands water temperature up to 212°F (100°C) and continuous dry heat up to 750°F (400°C)
- n Commonly used as a flash rust preventive on welded areas
- n Inhibits rust on steel under aggressive conditions
- n Flexible coating will not yellow, chalk, crack, or peel
- n Electrochemically protects bare metal
- n Dries in 3-5 minutes
- n Acceptable for use in Canadian Food Processing Establishments

NET CONTENTS	LPS #
13 wt. oz./369 g/459 mL	05916

NET CONTENTS	LPS #
14 wt. oz./397 g/389 mL	00516
1 gal. (3.78 l)	05128

## ELECTRO CONTACT CLEANERS SAFE ON CIRCUIT BOARDS AND ELECTRONIC COMPONENTS



**NEW LOOK**

### CFC FREE ELECTRO CONTACT CLEANER



- Ideal for electronic and fine parts
- Cleans and degreases delicate precision mechanisms
- Penetrating action removes oil, grease, dirt, flux, and other contaminants
- Nonfood Compounds Program Listed Category Code: K2 Registration #059813 (Aerosol); #059814 (Bulk)

NET CONTENTS	LPS #
11 wt. oz./312 g/465 mL	03116
1 gal. (3.78 l)	03101*
5 gal. (18.93 l)	03105*
55 gal. (208 l)	03155*

\*Known as CFC Free Premium Solvent

**VALUE PERFORMANCE  
ALTERNATIVE**



**NEW LOOK**

### MICRO-X FAST EVAPORATING CONTACT CLEANER



- Quick penetration
- Does not contain HCFCs
- No rinsing
- Nonfood Compounds Program Listed Category Code: K2 Registration #059853 (Aerosol); #059852 (Bulk)

NET CONTENTS	LPS #
11 wt. oz./312 g/466 mL	04516
55 gal. (208 l)	04555*



**NEW LOOK**

### VOC COMPLIANT

### CFC FREE NU CONTACT CLEANER



- Ideal for electronic and fine parts
- Cleans delicate precision mechanism
- Penetrating action removes dirt, flux, moisture, dust, oxides, and other contaminants
- Nonfood Compounds Program Listed Category Code: K2 Registration #142024 (Aerosol)

NET CONTENTS	LPS #
11 wt. oz./312 g/416 mL	05416

**VALUE PERFORMANCE  
ALTERNATIVE**



**NEW LOOK**

### VOC COMPLIANT

### MICRO-X NU FAST EVAPORATING CONTACT CLEANER



- Reduced VOCs (Volatile Organic Compounds)
- Quick penetration
- Ideal for electronic and fine parts
- Removes dirt, dust, flux and other contaminants
- Nonfood Compounds Program Listed Category Code: K2 Registration #142149 (Aerosol)

NET CONTENTS	LPS #
11 wt. oz./312 g/417 mL	06616





# Aerospace Contact Cleaners and Anti-Seize Compounds



## ELECTRO CONTACT CLEANER

Continue



NEW AEROSOL LOOK  
ARRIVING 2015

LPS has all the electrical cleaners I need... They're safe, dry quickly, and nothing works better!



### ELECTRO 140° CONTACT CLEANER



- Flash point above 140°F (60°C)
- Superior wetting and penetrating action
- Controlled evaporation
- Safe to use on most surfaces
- Ideal for part washers, dip tanks, and ultrasonic cleaning tanks

NET CONTENTS	LPS #
11 wt. oz./312 g/389 mL	00916

From Page 18

## NON-FLAMMABLE & VOC COMPLIANT

### ELECTRA-X CONTACT CLEANER



NEW LOOK



- Quick penetration
- Does not contain HCFCs
- Ideal for electronic and fine parts
- Removes light greases, oils, dirt, and organic soils

NET CONTENTS	LPS #
12 wt. oz./340g/266mL	00816*



NEW AEROSOL LOOK  
ARRIVING 2015

### REVO 66 CONTACT CLEANER



- Unique alternative to HCFC cleaners
- Does not contain brominated solvents
- Ideal for removing dirt, moisture, flux, or oxides from the internal components of electronic equipment
- Quick penetration
- Safe to use on most surfaces
- Nonfood Compounds Program Listed Category Code: K2 Registration #140245 (Aerosol)
- Acceptable for use in Canadian Food Processing Establishments

NET CONTENTS	LPS #
12 wt. oz./340 g/279 mL	04416

## ANTI-SEIZES



NEW LOOK  
ARRIVING 2015

### COPPER ANTI-SEIZE



- Prevents seizure up to 1800°F (982°C)
- Lead free
- Protects against seizure, heat-freeze, galling, rust and corrosion
- Brushes easily
- Highly adhesive on both wet and dry surfaces
- Will not run, drip, or settle out
- Copper color

NET CONTENTS	LPS #
12 wt. oz./340 g/406 mL	02916
1/2 lb. (227 g)	02908
1 lb. (454 g)	02910



NEW LOOK  
ARRIVING 2015

### ALL-PURPOSE ANTI-SEIZE



- Prevents seizure up to 1800°F (982°C)
- Moly fortified
- Lead free
- Protects against seizure, heat-freeze, galling, rust, and corrosion
- Lowers friction; reduces wrench torque
- Reduces maintenance costs
- Not affected by contraction, expansion, or vibration
- Will not run, drip, or settle out
- Charcoal grey color

NET CONTENTS	LPS #
	04108
	04110



NEW LOOK  
ARRIVING 2015

### NICKEL ANTI-SEIZE



- Prevents seizure up to 2600°F (1427°C)
- Does not contain lead, copper, or graphite
- Protects against seizure, rust, and corrosion
- Chemically inert
- Can be used with ammonia, acetylene, and vinyl monomers which are unstable in the presence of copper
- Strong resistance to water wash off
- Brushable to -18°F (-27°C)
- Will not run, drip, or settle out
- Ideal for use on stainless steel and for joining dissimilar metals
- Silver color
- Acid resistant

NET CONTENTS	LPS #
1/2 lb. (227 g)	03908
1 lb. (454 g)	03910



# Threadlocking Adhesives

## Product Table



Solution	Are the metal parts already assembled?					
	Yes	No				
	Wicking grade	What strength do you require?				
	Medium / High	Low	Medium		High	
	Liquid	Liquid	Liquid	Liquid	Liquid	Liquid
	LOCTITE 290	LOCTITE 222	LOCTITE 243	LOCTITE 2400	LOCTITE 270	LOCTITE 2700
Functional strength after	3 hr	6 hr	2 hr	2 hr	3 hr	3 hr
Breakaway torque M10 bolts	10 Nm	6 Nm	26 Nm	20 Nm	33 Nm	20 Nm
Service temperature range	-55°C to +150°C	-55°C to +150°C	-55°C to +180°C	-55°C to +150°C	-55°C to +180°C	-55°C to +150°C
Pack sizes	10ml, 50ml, 250ml, 2 ltr	10ml, 50ml, 250ml	10ml, 50ml, 250ml, 2 ltr	5ml, 50ml, 250ml	10ml, 50ml, 250ml	5ml, 50ml, 250ml
Equipment	97001, 98414	97001, 98414	97001, 98414	97001, 98414	97001, 98414	97001, 98414
	<p><b>LOCTITE 290</b></p> <ul style="list-style-type: none"> <li>• Ideal for locking preassembled fasteners, e.g. instrumentation screws, electrical connectors and set screws</li> </ul>	<p><b>LOCTITE 222</b></p> <ul style="list-style-type: none"> <li>• Ideal for low-strength threadlocking of adjusting screws, countersunk head screws and set screws</li> <li>• Good on low-strength metals which could break during disassembly, e.g. aluminium or brass</li> <li>• P1 NSF Reg. No.: 123002</li> </ul>	<p><b>LOCTITE 243</b></p> <ul style="list-style-type: none"> <li>• Works on all metals, including passive substrates (e.g. stainless steel, aluminium, plated surfaces)</li> <li>• Tolerates slight contamination of industrial oils, e.g. engine oils, corrosion prevention oils and cutting fluids</li> <li>• Prevents loosening on vibrating parts, e.g. pumps, gear boxes or presses</li> <li>• Permits disassembly with hand tools for servicing</li> <li>• P1 NSF Reg. No.: 123000</li> </ul>	<p><b>LOCTITE 2400</b></p> <ul style="list-style-type: none"> <li>• Leading in health and safety</li> <li>• No hazard symbols, risk or safety phrases</li> <li>• "White" Material Safety Data Sheet – no entries in sections 2, 3, 15 and 16 of MSDS acc. to (EC) No. 1907/2006 – ISO 11014-1</li> <li>• Excellent chemical and thermal resistance of cured product</li> <li>• To be used where regular disassembly with hand tools for servicing is required</li> <li>• WRAS Approval (BS 6920): 1104507</li> </ul>	<p><b>LOCTITE 270</b></p> <ul style="list-style-type: none"> <li>• Suitable for all metal fasteners, including stainless steel, aluminium, plated surfaces and chrome-free coatings</li> <li>• Tolerates slight contaminations of industrial oils, e.g. engine oils, corrosion prevention oils, cutting fluids</li> <li>• Ideal for permanently locking studs on engine blocks and pump housings</li> <li>• To be used if regular removal for maintenance is not required</li> <li>• P1 NSF Reg. No.: 123006</li> </ul>	<p><b>LOCTITE 2700</b></p> <ul style="list-style-type: none"> <li>• Leading in health and safety</li> <li>• No hazard symbols, risk or safety phrases</li> <li>• "White" Material Safety Data Sheet – no entries in sections 2, 3, 15 and 16 of MSDS acc. to (EC) No. 1907/2006 – ISO 11014-1</li> <li>• Excellent chemical and thermal resistance of cured product</li> <li>• For applications where disassembly is not required</li> <li>• WRAS Approval (BS 6920): 1104508</li> </ul>



## Threadlocking Adhesives

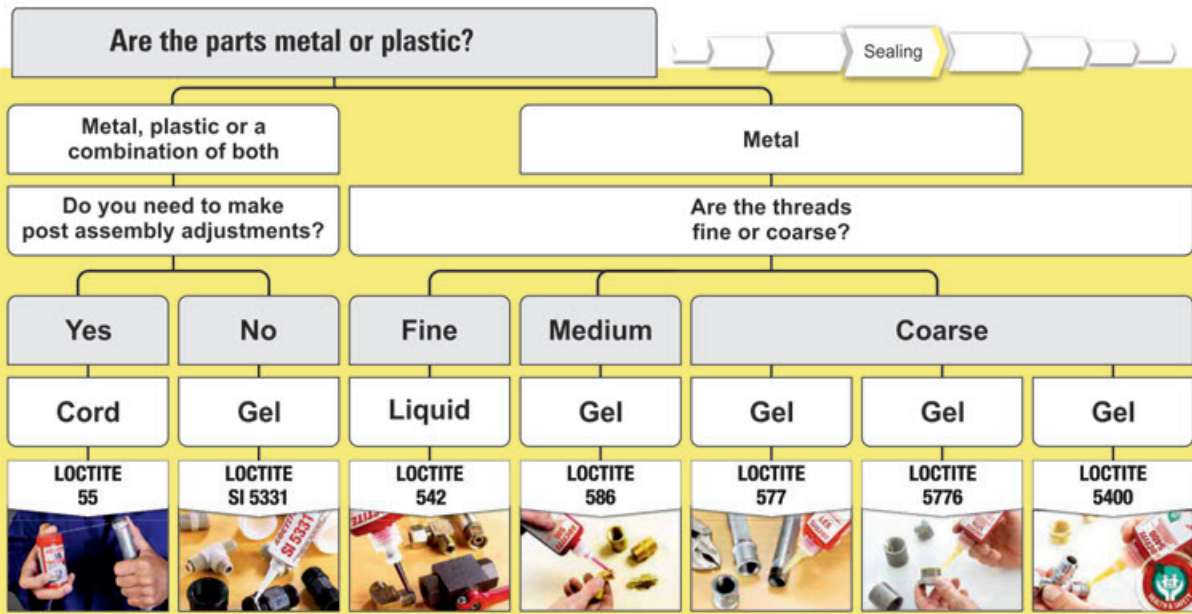
### Product List



Product	Chemical basis	Colour	Fluorescence	Max. thread size	Service temperature range	Strength	Breakaway torque	Thixotropy
LOCTITE 221	Methacrylate	Purple	Yes	M12	-55°C to +150°C	Low	8.5 Nm	No
LOCTITE 222	Methacrylate	Purple	Yes	M36	-55°C to +150°C	Low	6 Nm	Yes
LOCTITE 241	Methacrylate	Blue opaque	Yes	M12	-55°C to +150°C	Medium	11.5 Nm	No
LOCTITE 242	Methacrylate	Blue	Yes	M36	-55°C to +150°C	Medium	11.5 Nm	Yes
LOCTITE 243	Methacrylate	Blue	Yes	M36	-55°C to +180°C	Medium	26 Nm	Yes
LOCTITE 245	Methacrylate	Blue	Yes	M80	-55°C to +150°C	Medium	13 Nm	Yes
LOCTITE 248 Stick	Methacrylate	Blue	Yes	M50	-55°C to +150°C	Medium	17 Nm	–
LOCTITE 262	Methacrylate	Red	Yes	M36	-55°C to +150°C	Medium/high	22 Nm	Yes
LOCTITE 268 Stick	Methacrylate	Red	Yes	M50	-55°C to +150°C	High	17 Nm	–
LOCTITE 270	Methacrylate	Green	Yes	M20	-55°C to +180°C	High	33 Nm	No
LOCTITE 271	Methacrylate	Red	Yes	M20	-55°C to +150°C	High	26 Nm	No
LOCTITE 272	Methacrylate	Red-orange	No	M36	-55°C to +200°C	High	23 Nm	Yes
LOCTITE 275	Methacrylate	Green	Yes	M80	-55°C to +150°C	High	25 Nm	Yes
LOCTITE 276	Methacrylate	Green	Yes	M20	-55°C to +150°C	High	60 Nm	No
LOCTITE 277	Methacrylate	Red	Yes	M36	-55°C to +150°C	High	32 Nm	Yes
LOCTITE 278	Methacrylate	Green	No	M36	-55°C to +200°C	High	42 Nm	No
LOCTITE 290	Methacrylate	Green	Yes	M6	-55°C to +150°C	Medium/high	10 Nm	No
LOCTITE 2400	Methacrylate	Blue	Yes	M36	-55°C to +150°C	Medium	20 Nm	Yes
LOCTITE 2700	Methacrylate	Green	Yes	M20	-55°C to +150°C	High	20 Nm	No
LOCTITE 2701	Methacrylate	Green	Yes	M20	-55°C to +150°C	High	38 Nm	No

Product	Viscosity	Fixture time steel	Fixture time brass	Fixture time stainless steel	Pack sizes	Comments
LOCTITE 221	100 – 150 mPa·s	25 min.	20 min.	210 min.	250ml	Low strength, low viscosity, small threads
LOCTITE 222	900 – 1,500 mPa·s	15 min.	8 min.	360 min.	10ml, 50ml, 250ml	Low strength, general purpose
LOCTITE 241	100 – 150 mPa·s	35 min.	12 min.	240 min.	250ml	Medium strength, low viscosity, small threads
LOCTITE 242	800 – 1,600 mPa·s	5 min.	15 min.	20 min.	250ml	Medium strength, medium viscosity, general purpose
LOCTITE 243	1,300 – 3,000 mPa·s	10 min.	5 min.	10 min.	10ml, 50ml, 250ml, 2 ltr	Medium strength, general purpose
LOCTITE 245	5,600 – 10,000 mPa·s	20 min.	12 min.	240 min.	50ml, 250ml	Medium strength, medium viscosity, large threads
LOCTITE 248 Stick	Semi-solid	5 min.	–	20 min.	19g	Medium strength, positioning; maintenance, repair and overhaul
LOCTITE 262	1,200 – 2,400 mPa·s	15 min.	8 min.	180 min.	250ml	Medium/high strength, general purpose
LOCTITE 268 Stick	Semi-solid	5 min.	–	5 min.	9g, 19g	High strength, positioning; maintenance, repair and overhaul
LOCTITE 270	400 – 600 mPa·s	10 min.	10 min.	150 min.	10ml, 50ml, 250ml	High strength, general purpose
LOCTITE 271	400 – 600 mPa·s	10 min.	5 min.	15 min.	Not available in the U.K.	High strength, low viscosity
LOCTITE 272	4,000 – 15,000 mPa·s	40 min.	–	–	50ml, 250ml	High strength, high temperature resistant
LOCTITE 275	5,000 – 10,000 mPa·s	15 min.	7 min.	180 min.	50ml, 250ml, 2 ltr	High viscosity, high strength, large threads
LOCTITE 276	380 – 620 mPa·s	3 min.	3 min.	5 min.	50ml	High strength, especially for nickel surfaces
LOCTITE 277	6,000 – 8,000 mPa·s	30 min.	25 min.	270 min.	50ml	High viscosity, high strength, large threads
LOCTITE 278	2,400 – 3,600 mPa·s	20 min.	20 min.	60 min.	50ml, 250ml	High strength, high temperature resistant
LOCTITE 290	20 – 55 mPa·s	20 min.	20 min.	60 min.	10ml, 50ml, 250ml, 2 ltr	Medium/high strength, wicking grade
LOCTITE 2400	225 – 475 mPa·s	10 min.	8 min.	10 min.	5ml, 50ml, 250ml	Medium strength, no labelling, white MSDS
LOCTITE 2700	350 – 550 mPa·s	5 min.	4 min.	5 min.	5ml, 50ml, 250ml	High strength, no labelling, white MSDS
LOCTITE 2701	500 – 900 mPa·s	10 min.	4 min.	25 min.	10ml, 50ml, 250ml, 1 ltr, 2 ltr	High strength, especially for chromated surfaces





Solution

Substrate to be sealed	Metal, plastic or both	Metal, plastic or both	Metal	Metal	Metal	Metal	Metal
Maximum pipe size	Tested to 4"	3"	3/4"	2"	3"	3"	3"
Disassembly strength	Low	Low	Medium	High	Medium	Medium	Medium
Instant low pressure seal	Yes (full pressure)	Yes	No	No	Yes	Yes	Yes
Service temperature range	-55°C to +130°C	-50°C to +150°C	-55°C to +150°C	-55°C to +150°C	-55°C to +150°C	-55°C to +150°C	-55°C to +150°C
Pack sizes	50m, 150m cord	100ml	10ml, 50ml, 250ml	Not available in the U.K.	50ml, 250ml, 2 ltr	50ml, 250ml	50ml, 250ml
Equipment	-	-	97001, 98414	97001, 98414	97002	97002	97002

**LOCTITE 55**  
 ● General purpose, threaded pipe and fitting sealant  
 + Non-curing, immediate, full pressure seal  
 ● For a quick, easy and reliable seal  
 WRAS listed, meets BS 6920 for potable water: 0808533  
 DVGW/KTW approval for gas and potable water Tested in accordance with EN 751-2 Class ARP and DIN 30660 Certified to NSF/ANSI, Standard 61

**LOCTITE SI 5331**  
 ● Ideal for use on threaded plastic or plastic/metal fittings carrying hot or cold water e.g. industrial and agricultural plastic water pipe systems or drainage systems  
 WRAS listed, meets BS 6920 for potable water: 0706521  
 DVGW approval, tested in accordance with EN 751-1 P1 NSF Reg. No.: 123620

**LOCTITE 542**  
 ● Ideal for fine threads as used in hydraulic, pneumatic & general fittings  
 DVGW approval (EN 751-1): NG-5146AR0855

**LOCTITE 586**  
 ● Slow curing, high strength sealant  
 ● Especially suitable for copper and brass fittings

**LOCTITE 577**  
 ● General purpose sealant for all coarse metal threads  
 ● Suitable where a fast cure is required or at low temperatures, e.g. outdoor plant maintenance.  
 P1 NSF Reg. No.: 123001  
 DVGW Approval (EN 751-1): NG-5146AR0621  
 WRAS Approval (BS 6920): 0711506

**LOCTITE 5776**  
 ● General purpose sealant for all coarse metal threads  
 ● Suitable where a fast cure is required or at low temperatures, e.g. outdoor plant maintenance.  
 ● Ideal for drinking water applications up to 60 °C  
 DVGW Approval (EN 751-1): NG-5146BU0527  
 WRAS Approval (BS 6920-1-2000) Reg. No.: 1208532  
 NSF/ANSI Standard 61

**LOCTITE 5400**  
 ● Leading in health and safety  
 + No hazard symbols, risk or safety phrases.  
 ● "White" Material Safety Data Sheet - no entries in sections 2, 3, 15 and 16 of MSDS acc.to (EC) No. 1907/2006 - ISO 11014-1  
 ● Slow curing, medium strength thread sealant  
 ● Excellent chemical and thermal resistance of cured product

## Thread Sealants

### Product List



Product	Chemical basis	Colour	Fluorescence	Max. thread size	Service temperature range	Disassembly strength	Breakaway torque
LOCTITE 55	PA Multifilament	White	No	R4"	-55°C to +130°C	—	—
LOCTITE 511	Methacrylate	White to off-white	No	M80/R3"	-55°C to +150°C	Low	6 Nm
LOCTITE 542	Methacrylate	Brown	No	M26/R3/4"	-55°C to +150°C	Medium	15 Nm
LOCTITE 549	Methacrylate	Orange	No	M80/R3"	-55°C to +150°C	High	20 Nm
LOCTITE 561 Stick	Methacrylate	Orange	No	M80/R3"	-55°C to +150°C	Low	2 Nm
LOCTITE 567	Methacrylate	Off-white	No	M80/R3"	-55°C to +150°C	Low	1.7 Nm
LOCTITE 570	Methacrylate	Opaque silverbrown	No	M80/R3"	-55°C to +150°C	Low	5.5 Nm
LOCTITE 572	Methacrylate	White to off-white	No	M80/R3"	-55°C to +150°C	Medium	7 Nm
LOCTITE 577	Methacrylate	Yellow	Yes	M80/R3"	-55°C to +150°C	Medium	11 Nm
LOCTITE 582	Methacrylate	Blue	Yes	M56/R2"	-55°C to +150°C	Medium	8.5 Nm
LOCTITE 586	Methacrylate	Red	Yes	M56/R2"	-55°C to +150°C	High	15 Nm
LOCTITE 5400	Methacrylate	Yellow	Yes	M80/R3"	-55°C to +150°C	Medium	19 Nm
LOCTITE 5772	Methacrylate	Yellow	Yes	M80/R3"	-55°C to +150°C	Medium	11 Nm
LOCTITE 5776	Methacrylate	Yellow	Yes	M80/R3"	-55°C to +150°C	Medium	9 Nm
LOCTITE SI5331	Silicone	White	No	M80/R3"	-55°C to +150°C	Low	1.5 Nm

Product	Viscosity	Thixotropy	Approval	Pack sizes	Comments
LOCTITE 55	Cord	—	DVGW, KTW, NSF	50m, 150m cord	For plastic and metal, especially, gas and water pipes, non-curing
LOCTITE 511	9,000 – 22,000 mPa-s	Yes	DVGW	50ml, 250ml	For metal, low strength, general purpose
LOCTITE 542	400 – 800 mPa-s	No	DVGW, WRAS	10ml, 50ml, 250ml	For metal, especially hydraulic pipes
LOCTITE 549	20,000 mPa-s	Yes	—	250ml	For metal, high strength, slow curing
LOCTITE 561 Stick	Semi-solid	NSF	—	19g	Stick, for metal threads; maintenance, repair and overhaul
LOCTITE 567	280,000 – 800,000 mPa-s	Yes	UL	50ml, 250ml, 2 ltr	For metal, low strength, coarse threads
LOCTITE 570	16,000 – 24,000 mPa-s	Yes	—	Not available in the U.K.	For metal, low strength, very slow curing
LOCTITE 572	14,400 – 28,600 mPa-s	Yes	—	50ml, 250ml	For metal, slow curing
LOCTITE 577	16,000 – 33,000 mPa-s	Yes	DVGW, NSF, BAM	50ml, 250ml, 2 ltr	For metal, general purpose
LOCTITE 582	4,500 – 5,500 mPa-s	No	—	Not available in the U.K.	For metal, medium strength, fast curing
LOCTITE 586	4,000 – 6,000 mPa-s	Yes	BAM	Not available in the U.K.	For metal, high strength, excellent on brass
LOCTITE 5400	5,000 – 20,000 mPa-s	Yes	—	50ml, 250ml	For metal, no labelling, white MSDS
LOCTITE 5772	16,000 – 33,000 mPa-s	Yes	PMUC	50ml	For metal, especially for nuclear power plants
LOCTITE 5776	1,000 – 6,000 mPa-s	Yes	DVGW	50ml, 250ml	For metal, especially gas and water pipes, fast curing
LOCTITE SI 5331	50,000 mPa-s	Yes	DVGW, WRAS, NSF	100ml	For plastic and metal



Sealing

Which gap must the sealant fill?

Up to 0.25 mm

Greater than 0.25 mm

Metals

Plastic, metals or combination of both

Paste

Gel

Paste

Gel

Paste

Paste

Paste

Paste

**LOCTITE 574**

**LOCTITE 518**

**LOCTITE 5188**

**LOCTITE 5800**

**LOCTITE 510**

**LOCTITE SI 5926**

**LOCTITE SI 5699**

**LOCTITE SI 5970**

Solution



Flange type	Rigid	Rigid	Rigid	Rigid	Rigid	Flexible	Flexible	Flexible
Cure method	Anaerobic	Anaerobic	Anaerobic	Anaerobic	Anaerobic	Moisture	Moisture	Moisture
Oil resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Excellent
Water/Glycol resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Good
Service temperature range	-55°C to +150°C	-55°C to +150°C	-55°C to +150°C	-55°C to +180°C	-55°C to +200°C	-55°C to +200°C	-55°C to +200°C	-50°C to +200°C
Pack size	50ml, 160ml cartridge, 250ml, 2 ltr	50ml, 65ml, 300ml, 850ml, 2 ltr	50ml, 300ml cartridge, 850ml, 2 ltr	50ml, 300ml cartridge	50ml, 160ml, 250ml	40ml tube, 310ml	300ml cartridge, 20 ltr	300ml cartridge, 20 ltr
Equipment	97002, 91124	142240, 97002	142240, 97002	142240, 97002	142240, 97002	–	142240, 97002	142240, 97002

**LOCTITE 574**  
 Ideal for use on rigid metal parts, e.g. cast iron components and pump housin

**LOCTITE 518**  
 Ideal for use on rigid iron, steel and aluminium flanges  
 P1 NSF Reg. No.: 123758

**LOCTITE 5188**  
 Ideal for sealing all kinds of rigid metal flanges, especially aluminium flanges  
 Excellent in demanding applications  
 Excellent chemical resistance, highly flexible  
 Superior adhesion, can tolerate slight oil contamination on the flange surface

**LOCTITE 5800**  
 Leading in health and safety: No hazard symbols, risk or safety phrases  
 "White" Material Safety Data Sheet – no entries in sections 2, 3, 15 and 16 of MSDS  
 Excellent chemical and thermal resistance of cured product

**LOCTITE 510**  
 Ideal for use on rigid flanges where high temperature and chemical resistance are necessary  
 P1 NSF  
 Reg. No.:123007

**LOCTITE SI 5926**  
 Multi-purpose flexible silicone sealant. Can be used on metal, plastic and painted parts  
 Resists vibration, thermal expansion and contraction

**LOCTITE SI 5699**  
 Ideal for sealing all types of flanges including stamped sheet metal where water glycol resistance is required  
 Tack-free after 10 min.  
 P1 NSF  
 Reg. No.:122998

**LOCTITE SI 5970**  
 Replacement for cork and paper cut gaskets on flanges and stamped sheet metal covers  
 Ideal for use where high vibration or flexing occurs  
 Can be used with plastic and painted parts  
 Tack-free after 25 min.



## Gasketing Products

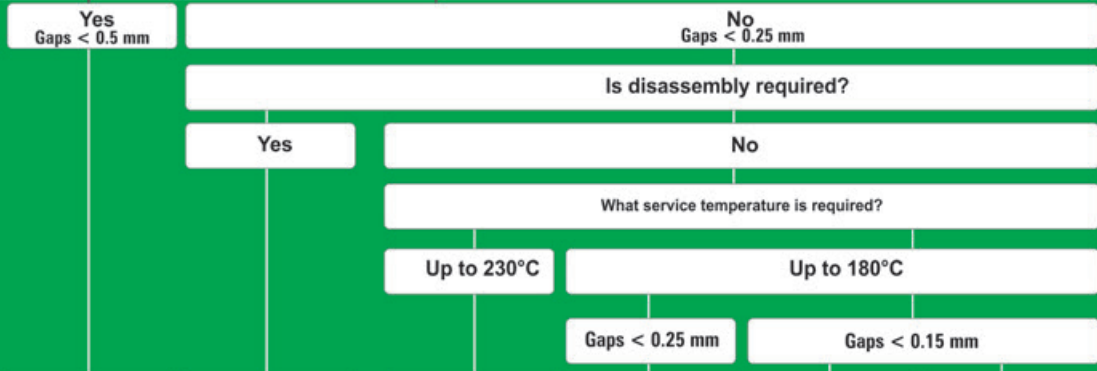
### Product Table



Product	Chemical basis	Colour	Fluorescence	Temperature range	Strength	Viscosity	Extrusion rate	Tensile shear strength
LOCTITE 510	Methacrylate	Pink	No	-55°C to +200°C	Medium	40,000 – 140,000 mPa·s	-	5 N/mm
LOCTITE 515	Methacrylate	Dark purple	Yes	-55°C to +150°C	Medium	150,000 – 375,000 mPa·s	-	6 N/mm
LOCTITE 518	Methacrylate	Red	Yes	-55°C to +150°C	Medium	500,000 - 1,000,000 mPa·s	-	7.5 N/mm
LOCTITE 573	Methacrylate	Green	Yes	-55°C to +150°C	Low	13,500 – 33,000 mPa·s	-	1.3 N/mm
LOCTITE 574	Methacrylate	Orange	Yes	-55°C to +150°C	Medium	23,000 – 35,000 mPa·s	-	8.5 N/mm
LOCTITE 5188	Methacrylate	Red	Yes	-55°C to +150°C	Medium	11,000 – 32,000 mPa·s	-	7 N/mm
LOCTITE 5203	Methacrylate	Red	Yes	-55°C to +150°C	Very low	50,000 - 100,000 mPa·s	-	1 N/mm
LOCTITE 5205	Methacrylate	Red	Yes	-55°C to +150°C	Medium	30,000 – 75,000 mPa·s	-	3 N/mm
LOCTITE 5208	Methacrylate	Red	Yes	-55°C to +150°C	Medium	12,000 – 27,000 mPa·s	-	6 N/mm
LOCTITE 5800	Methacrylate	Red	Yes	-55°C to +180°C	Medium	11,000 – 32,000 mPa·s	-	5 N/mm
LOCTITE 128068	Methacrylate	Dark purple	Yes	-55°C to +150°C	Medium	300,000 - 1,000,000 mPa·s	-	6 N/mm
LOCTITE SI 5699	Silicone	Grey	No	-55°C to +200°C	Low	-	200 g/min	1.7 N/mm
LOCTITE SI 5900	Silicone	Black	No	-55°C to +200°C	Low	-	20 – 50 g/min	1.2 N/mm
LOCTITE SI 5910	Silicone	Black	No	-55°C to +200°C	Low	-	300 g/min	1.2 N/mm
LOCTITE SI 5920	Silicone	Copper	No	-55°C to +350°C	Low	-	275 g/min	1.4 N/mm
LOCTITE SI 5926	Silicone	Blue	No	-55°C to +200°C	Low	-	550 g/min	-
LOCTITE SI 5970	Silicone	Black	No	-50°C to +200°C	Low	-	40 – 80 g/min	1.5 N/mm
LOCTITE SI 5980	Silicone	Black	No	-55°C to +200°C	Low	-	120 – 325 g/min	1.5 N/mm

Product	Max. gap	Fixture time steel	Skin-over time	Fixture time aluminium	Cure through volume in 24 hr	Pack sizes	Comments
LOCTITE 510	0.25 mm	25 min.	-	45 min.	-	50ml, 160ml, 250ml	For machined, rigid metal flanges – high temperature resistance
LOCTITE 515	0.25 mm	30 min.	-	30 min.	-	50ml, 300ml	For machined, rigid metal flanges – medium cure speed
LOCTITE 518	0.3 mm	25 min.	-	20 min.	-	50ml, 65ml, 300ml cartridge, 850ml, 2 ltr	For machined, rigid metal flanges – semi-flexible
LOCTITE 573	0.1 mm	9 hr	-	12 hr	-	250ml	For machined, rigid metal flanges – slow curing
LOCTITE 574	0.25 mm	15 min.	-	45 min.	-	50ml, 160ml cartridge, 250ml, 2 ltr	For machined, rigid metal flanges – general purpose
LOCTITE 5188	0.25 mm	25 min.	-	10 min.	-	50ml, 300ml, 850ml, 2 ltr	For machined, rigid metal flanges – highly flexible
LOCTITE 5203	0.125 mm	10 min.	-	20 min.	-	300ml	For machined, rigid metal flanges – easy disassembly
LOCTITE 5205	0.25 mm	25 min.	-	25 min.	-	50ml, 300ml, 850ml	For machined, rigid metal flanges – semi-flexible
LOCTITE 5208	0.125 mm	12 min.	-	30 min.	-	250ml	For machined, rigid metal flanges – semi-flexible
LOCTITE 5800	0.25 mm	25 min.	-	20 min.	-	50ml, 300ml cartridge	For machined, rigid metal flanges – no labelling, white MSDS
LOCTITE 128068	0.1 mm	1 hr	-	3 hr	-	300ml, 850ml, 2kg	For machined, rigid metal flanges – semi-flexible, very slow curing
LOCTITE SI 5699	1 mm	-	30 min.	-	2.5 mm	300ml, 20 ltr	For flexible flanges, machined or cast surfaces, metal or plastic, excellent in water/glycol
LOCTITE SI 5900	1 mm	-	15 min.	-	2.5 mm	50ml, 300ml, 20 ltr	Thixotropic paste, black, excellent in engine oils
LOCTITE SI 5910	1 mm	-	40 min.	-	2.75 mm	300ml cartridge, 20 ltr, 200 ltr	For flexible flanges, machined or cast surfaces, metal or plastic
LOCTITE SI 5920	1 mm	-	40 min.	-	2.5 mm	80ml tube, 300ml cartridge	For flexible flanges, machined or cast resistant surfaces, high temperature
LOCTITE SI 5926	1 mm	-	60 min.	-	2.5 mm	40ml tube, 310ml	For flexible flanges, machined or cast surfaces, metal or plastic
LOCTITE SI 5970	1 mm	-	25 min.	-	2.5 mm	300ml cartridge, 20 ltr	For flexible flanges, machined or cast surfaces, metal or plastic
LOCTITE SI 5980	1 mm	-	30 min.	-	1 mm	40ml, 100ml, 300ml 200ml rocep can	Flange sealant, black, big gaps, label-free

Is assembly badly worn?



**Solution**



	LOCTITE 660 (with activator LOCTITE SF 7240 or LOCTITE SF 7649)	LOCTITE 641	LOCTITE 620	LOCTITE 638	LOCTITE 6300	LOCTITE 648
<b>Diametrical clearance</b>	Up to 0.5 mm	Up to 0.1 mm	Up to 0.2 mm	Up to 0.25 mm	Up to 0.15 mm	Up to 0.15 mm
<b>Strength required</b>	High	Medium	High	High	High	High
<b>Handling strength after</b>	15 min.	25 min.	80 min.	4 min.	10 min.	3 min.
<b>Service temperature range</b>	-55°C to +150°C	-55°C to +150°C	-55°C to +230°C *	-55°C to +180°C	-55°C to +180°C	-55°C to +200°C
<b>Pack size</b>	50ml	10ml, 50ml, 250ml	250ml	10ml, 50ml, 250ml, 1 ltr, 2 ltr	50ml, 250ml	10ml, 50ml, 250ml, 1 ltr, 2 ltr
<b>Equipment</b>	142240	97001, 98414	97001, 98414	97001, 97121, 97201, 98414	97001, 98414	97001, 97009, 97121, 97201, 98414

**LOCTITE 660**  
 ● Ideal for repairing worn coaxial parts without remachining  
 ● Enables re-use of worn bearing seats, keys, splines or tapers  
 ● Suitable for retaining shims  
**P1 NSF Reg. No.: 123704**

**LOCTITE 641**  
 ● Ideal for parts that need subsequent dismantling, e.g. retention of bearings onto shafts and into housings

**LOCTITE 620**  
 ● High temperature resistance  
 ● Ideal for retaining pins in high temperature assemblies, sleeves in pump housings and bearings in auto transmissions  
**DVGW approval (EN 751-1): NG-5146AR0622**

**LOCTITE 638**  
 ● High temperature resistance  
 ● Bonds through contamination including industrial oils  
 ● High strength on all metals, including passive substrates (e.g. stainless steel)  
 ● Ideal for shafts, gears, pulleys and similar cylindrical parts  
**Approvals: P1 NSF Reg. No. 123010, DVGW (EN 751-1): NG 5146AR0619, WRAS (BS 6920): 0511518**

**LOCTITE 6300**  
 ● Leading in health and safety  
 ● No hazard symbols, risk or safety phrases  
 ● "White" Material Safety Data Sheet (no entries in sections 2, 3, 15 and 16 of MSDS)  
 ● + Good thermal resistance

**LOCTITE 648**  
 ● High temperature resistance  
 ● Bonds through contamination including industrial oils  
 ● High strength on all metals, including passive substrates (e.g. stainless steel)  
 ● Ideal for retaining of parts with a clearance or interference fit  
**Approvals: P1 NSF Reg. No.: 148350, DVGW (EN 751-1): NG 5146C00236, WRAS (BS 6920): 0808532**

1 At room temperature on steel joints.  
 \* After heat cure +180°C for 30 min.



## Retaining Compounds

### Product Table



Product	Chemical basis	Colour	Fluorescence	Service temperature range	Tensile shear strength	Thixotropy	Viscosity
LOCTITE 601	Methacrylate	Green	Yes	-55°C to +150°C	> 15 N/mm <sup>2</sup>	No	100 – 150 mPa-s
LOCTITE 603	Methacrylate	Green	Yes	-55°C to +150°C	> 22.5 N/mm <sup>2</sup>	No	100 – 150 mPa-s
LOCTITE 620	Methacrylate	Green	No	-55°C to +230°C**	> 24.1 N/mm <sup>2</sup>	Yes	5,000 – 12,000 mPa-s
LOCTITE 638	Methacrylate	Green	Yes	-55°C to +180°C	> 25 N/mm <sup>2</sup>	No	2,000 – 3,000 mPa-s
LOCTITE 640	Methacrylate	Green	Yes	-55°C to +175°C	22 N/mm <sup>2</sup>	No	450 – 750 mPa-s
LOCTITE 641	Methacrylate	Yellow	No	-55°C to +150°C	> 6.5 N/mm <sup>2</sup>	No	400 – 800 mPa-s
LOCTITE 648	Methacrylate	Green	Yes	-55°C to +180°C	> 25 N/mm <sup>2</sup>	No	400 – 600 mPa-s
LOCTITE 649	Methacrylate	Green	Yes	-55°C to +175°C	> 15 N/mm <sup>2</sup>	No	550 – 950 mPa-s
LOCTITE 660	Methacrylate	Silver	No	-55°C to +150°C	> 17.2 N/mm <sup>2</sup>	Yes	150,000 – 350,000 mPa-s
LOCTITE 661	Methacrylate	Amber	No	-55°C to +175°C	> 15 N/mm <sup>2</sup>	No	400 – 600 mPa-s
LOCTITE 662	Methacrylate	Amber	No	-55°C to +150°C	> 25 N/mm <sup>2</sup>	No	1,750 – 3,250 mPa-s
LOCTITE 675	Methacrylate	Green	No	-55°C to +150°C	20 N/mm <sup>2</sup>	No	100 – 150 mPa-s
LOCTITE 6300	Methacrylate	Green	Yes	-55°C to +180°C	> 15 N/mm <sup>2</sup>	No	250 – 550 mPa-s
LOCTITE 121078	Methacrylate	Green	Yes	-55°C to +175°C	> 20 N/mm <sup>2</sup>	Yes	3,000 – 5,000 mPa-s

Product	Fixture time on steel	Maximum diametrical clearance	Pack sizes	Comments
LOCTITE 601	25 min.	0.1 mm	250ml	High strength, low viscosity, small gaps
LOCTITE 603	8 min.	0.1 mm	10ml, 50ml, 250ml, 1 ltr	High strength, oil tolerant
LOCTITE 620	80 min.	0.2 mm	250ml	High strength, high temperature resistance
LOCTITE 638	4 min.	0.25 mm	10ml, 50ml, 250ml, 1 ltr, 2 ltr	High strength, high temperature resistance, oil tolerant
LOCTITE 640	2 hr	0.1 mm	250ml	High strength, good temperature resistance, slow curing
LOCTITE 641	25 min.	0.1 mm	10ml, 50ml, 250ml	Medium strength, if disassembly is required
LOCTITE 648	3 min.	0.15 mm	10ml, 50ml, 250ml, 1 ltr, 2 ltr	High strength, high temperature resistance, oil tolerant
LOCTITE 649	10 min.	0.1 mm	250ml	High strength, no acrylic acid
LOCTITE 660	15 min.	0.5 mm*	50ml	High strength, gap fill for repair
LOCTITE 661	4 min.	0.15 mm	250ml	High strength, low viscosity, also UV-curing
LOCTITE 662	7 min.	0.25 mm	Not available in the U.K.	High strength, medium viscosity, also UV-curing
LOCTITE 675	45 min.	0.1 mm	250ml	High strength, slow curing
LOCTITE 6300	10 min.	0.15 mm	50ml, 250ml	High strength, white MSDS, good temperature resistance
LOCTITE 121078	3 min.	0.25 mm	250ml, 1 ltr, 2 ltr	High strength, good temperature resistance, high viscosity

\* In combination with activator

\*\* After heat cure +180 °C for 30 min.

### Structural Bonding – Epoxies

#### Product List



What is your focus?

General bonding

Fast curing

Food contact

High technical performance

High viscosity

Flowable

Clear

Food approved

Toughened

High temperature resistant

LOCTITE EA 3423

LOCTITE EA 9483

LOCTITE EA 3430

LOCTITE EA 9480

LOCTITE EA 9466

LOCTITE EA 9514

LOCTITE EA 9497

#### Solution



Description	2K Epoxy	2K Epoxy	2K Epoxy	2K Epoxy	2K Epoxy	1K Epoxy	2K Epoxy
Mix ratio by volume (A:B)	1:1	2:1	1:1	2:1	2:1	–	2:1
Mix ratio by weight (A:B)	100:70	100:46	1:1	100:46.5	100:50	–	100:50
Working life	45 min.	30 min.	7 min.	110 min.	60 min.	5 min.*	3 hr
Fixture time	180 min.	210 min.	15 min.	270 min.	180 min.	30 min.**	8 hr
Colour	Grey	Ultra clear	Ultra clear	Off-white	Yellowish	Grey	Grey
Viscosity	300 Pa·s	7 Pa·s	23 Pa·s	8.7 Pa·s	35 Pa·s	45 Pa·s	12 Pa·s
Shear strength (GBMS)	17 N/mm <sup>2</sup>	23 N/mm <sup>2</sup>	22 N/mm <sup>2</sup>	24 N/mm <sup>2</sup>	37 N/mm <sup>2</sup>	46 N/mm <sup>2</sup>	20 N/mm <sup>2</sup>
Peel strength (GBMS)	2.7 N/mm	1.5 N/mm	3 N/mm	0.4 N/mm	8 N/mm	9.5 N/mm	–
Service temperature range	-55°C to +120°C	-55°C to +150°C	-55°C to +100°C	-55°C to +120°C	-55°C to +120°C	-55°C to +200°C	-55°C to +180°C

**LOCTITE EA 3423**  
 ● Non-sag paste  
 ● Medium working life  
 ● Excellent chemical resistance  
 LOCTITE EA 3423 is a general purpose 2K epoxy adhesive, suitable for gap filling and vertical applications. Ideal for bonding metal components.

**LOCTITE EA 9483**  
 ● Flowable  
 ● Ultra-clear  
 ● Low moisture absorption  
 LOCTITE EA 9483 is a general purpose 2K epoxy adhesive, suitable for bonding and potting where optical clarity and high strength are required. Ideal for bonding decorative panels and displays.

**LOCTITE EA 3430**  
 ● Medium viscosity  
 ● Ultra-clear  
 ● Toughened  
 ● Water resistant  
 LOCTITE EA 3430 is a five minute 2K epoxy adhesive suitable for applications requiring an optically clear bond line. Ideal for bonding glass, decorative panels and displays, and general repair.

**LOCTITE EA 9480**  
 ● Good chemical resistance  
 ● Toughened  
 ● Good adhesion on stainless steel  
 LOCTITE EA 9480 is a food approved 2K epoxy adhesive suitable for bonding metals and most plastic parts in and around food processing areas.  
**KTW approval for potable water, Fraunhofer approval for incidental food contact**

**LOCTITE EA 9466**  
 ● Medium viscosity  
 ● Low density–SG=1  
 ● High strength  
 LOCTITE EA 9466 is a toughened 2K epoxy adhesive suitable for multi-purpose applications requiring a long open time and high bonding strength. Ideal for a wide variety of substrates such as metals, ceramics and most plastics.

**LOCTITE EA 9514**  
 ● Suitable for induction curing  
 ● High shear and peel strength  
 ● Excellent chemical resistance  
 ● High temperature resistance (+200°C)  
 LOCTITE EA 9514 is a toughened 1K epoxy adhesive suitable for gap filling and resistant to high operating temperatures. Ideal for applications requiring toughness such as filter and magnet bonding.

**LOCTITE EA 9497**  
 ● Medium viscosity  
 ● High thermal conductivity  
 ● High compressive strength  
 ● High temperature resistance (+180°C)  
 LOCTITE EA 9497 is a thermally conductive 2K epoxy adhesive for high temperature filling and bonding applications. Ideal for heat dissipation.

\* Gel time at +120°C

\*\* Cure time at +120°C or higher.



## Structural Bonding – Epoxies Product List

Product	Technology	Colour mix	Mixed viscosity	Mix ratio by volume	Working life	Fixture time	Service temperature range
LOCTITE EA Double Bubble	2K Epoxy	Clear	35 Pa-s	1:1	3 min.	5 min.	-55°C to +100°C
LOCTITE EA 3032	2K Epoxy	Grey	80 Pa-s	1:1	120 min.	480 min.	-55°C to +80°C
LOCTITE EA 3421	2K Epoxy	Clear amber	37 Pa-s	1:1	30 – 150 min.	240 min.	-55°C to +120°C
LOCTITE EA 3423	2K Epoxy	Grey	300 Pa-s	1:1	30 – 60 min.	180 min.	-55°C to +120°C
LOCTITE EA 3425	2K Epoxy	Yellow/white	1350 Pa-s	1:1	55 – 105 min.	240 min.	-55°C to +120°C
LOCTITE EA 3430	2K Epoxy	Ultra-clear	23 Pa-s	1:1	5 – 10 min.	15 min.	-55°C to +100°C
LOCTITE EA 3450	2K Epoxy	Grey	35 Pa-s	1:1	4 – 6 min.	15 min.	-55°C to +100°C
LOCTITE EA 3455	2K Epoxy	Grey	Pasty	1:1	40 min.	120 min.	-55°C to +100°C
LOCTITE EA 4108	1K Epoxy	Silver	170 Pa-s	–	–	Heat curing	-55°C to +180°C
LOCTITE EA 9250	2K Epoxy	White	45 Pa-s	3:1	9 min.	12 min.	-55°C to +150°C
LOCTITE EA 9450	2K Epoxy	Translucent	200 Pa-s	1:1	2 – 7 min.	13 min.	-55°C to +100°C
LOCTITE EA 9461	2K Epoxy	Grey	72 Pa-s	1:1	40 min.	240 min.	-55°C to +120°C
LOCTITE EA 9464	2K Epoxy	Grey	96 Pa-s	1:1	10 – 20 min.	180 min.	-55°C to +120°C
LOCTITE EA 9466	2K Epoxy	Yellowish	35 Pa-s	2:1	60 min.	180 min.	-55°C to +120°C
LOCTITE EA 9480	2K Epoxy	Off-white	8.7 Pa-s	2:1	110 – 190 min.	270 min.	-55°C to +120°C
LOCTITE EA 9483	2K Epoxy	Ultra-clear	7 Pa-s	2:1	25 – 60 min.	210 min.	-55°C to +150°C
LOCTITE EA 9489	2K Epoxy	Grey	45 Pa-s	1:1	60 – 120 min.	300 min.	-55°C to +120°C
LOCTITE EA 9492	2K Epoxy	White	30 Pa-s	2:1	15 min.	75 min.	-55°C to +180°C
LOCTITE EA 9497	2K Epoxy	Grey	12 Pa-s	2:1	165 – 255 min.	480 min.	-55°C to +180°C
LOCTITE EA 9514	1K Epoxy	Grey	45 Pa-s	–	–	Heat curing	-55°C to +200°C
TEROSON EP 5055	2K Epoxy	Grey	A: 145 Pa-s; B: 75 Pa-s	1:1	75 min.	270 min.	-55°C to +100°C

Product	Tensile strength	Peel strength	Pack sizes	Comments
LOCTITE EA Double Bubble	–	–	3g	For small and quick repairs, fast curing
LOCTITE EA 3032	–	–	Not available in the U.K.	Multiple purpose bonder, suitable for contact with potable water (approved to the Waters Byelaws Scheme)
LOCTITE EA 3421	28 N/mm <sup>2</sup>	2 – 3 N/mm	50ml, 200ml, 1kg	Structural adhesive, general purpose, long open time
LOCTITE EA 3423	24 N/mm <sup>2</sup>	2 – 3 N/mm	50ml, 1kg	Multiple purpose bonder, excellent for metals, good humidity resistance
LOCTITE EA 3425	27 N/mm <sup>2</sup>	1.5 – 2.5N/mm	50ml, 200ml	Multiple purpose bonder, excellent for metals, for large surfaces, thixotropic
LOCTITE EA 3430	36 N/mm <sup>2</sup>	3 N/mm	24ml, 50ml, 200ml	Multiple purpose bonder, fast cure, ultra-clear
LOCTITE EA 3450	–	–	25ml	Structural adhesive, fast cure, ideal for metal repair
LOCTITE EA 3455	–	–	Not available in the U.K.	Structural adhesive, fast cure, high viscosity
LOCTITE EA 4108	–	–	Not available in the U.K.	Free flowing, high chemical resistance, looks like silver solder
LOCTITE EA 9250	–	–	Not available in the U.K.	Thixotropic, high temperature resistance, good chemical resistance, cream coloured, fast set
LOCTITE EA 9450	17 N/mm <sup>2</sup>	0.6 N/mm	50ml, 200ml, 1kg	Multiple purpose bonder, fast cure (5 min.), gap filling, translucent
LOCTITE EA 9461	30 N/mm <sup>2</sup>	10 N/mm	50ml, 400ml, 20kg	Structural adhesive, toughened, gap filling
LOCTITE EA 9464	–	7 – 10 N/mm	50ml, 400ml	Structural adhesive, toughened, gap filling, fast cure
LOCTITE EA 9466	32 N/mm <sup>2</sup>	8 N/mm	50ml, 400ml, 1kg	Toughened multiple purpose bonder, high bond strength for all substrates
LOCTITE EA 9480	47 N/mm <sup>2</sup>	0.4 N/mm	50ml, 400ml	Multiple purpose bonder, approved for incidental food contact and potable water
LOCTITE EA 9483	47 N/mm <sup>2</sup>	1.5 N/mm	50ml, 400ml, 1kg	Multiple purpose bonder, ultra-clear, excellent for panels and displays
LOCTITE EA 9489	14 N/mm <sup>2</sup>	2.2 N/mm	50ml	Structural adhesive, general purpose, extended working life
LOCTITE EA 9492	31 N/mm <sup>2</sup>	1.6 N/mm	50ml, 400ml	High temperature resistance, high chemical resistance
LOCTITE EA 9497	52.6 N/mm <sup>2</sup>	–	50ml, 400ml	High temperature resistance, thermally conductive, excellent for bonding metal components (thixotropic)
LOCTITE EA 9514	44 N/mm <sup>2</sup>	9.5 N/mm	300ml, 1kg	High temperature resistance, heat resistant bonding, toughened, high mechanical resistance
TEROSON EP 5055	23 N/mm <sup>2</sup>	4 N/mm	250ml	Crash resistant structural bonder for car panels



Instant Adhesives

Product Table

Bonding

What type of materials are you bonding?

“Difficult-to-bond” rubbers or plastics, e.g. PE, PP, PTFE, silicones?

All other materials (except glass)

Defined small gaps < 0.15mm

Gaps up to 5mm

Defined small gaps < 0.15mm

Universal

Impact resistant

Bendable joints

Gel / Non-drip

Low bloom, low odour

Gap filling

Structural applications / Impact resistant

Solution

LOCTITE 406  
(with primer SF 770)

LOCTITE 401

LOCTITE 435

LOCTITE 480

LOCTITE 4850

LOCTITE 454

LOCTITE 460

LOCTITE 3090

LOCTITE 4090



Fixture time	2 – 10 sec.	3 – 10 sec.	10 – 20 sec.	20 – 50 sec.	3 – 10 sec.	5 – 10 sec.	5 – 20 sec.	90 – 120 sec.	90 – 150 sec.
Viscosity	20 mPa·s	100 mPa·s	200 mPa·s	150 mPa·s	400 mPa·s	Gel	40 mPa·s	Gel	High-viscosity / Non-drip
Colour	Colourless	Colourless	Colourless	Black	Colourless	Colourless	Colourless	Colourless	Off-white to light yellow
Service temperature range	-40°C to +120°C	-40°C to +120°C	-40°C to +100°C	-40°C to +100°C	-40°C to +80°C	-40°C to +120°C	-40°C to +80°C	-40°C to +80°C	-40°C to +150°C
Pack sizes	20g, 50g, 500g, 2kg	3g, 20g, 50g, 500g	20g, 500g	20g, 500g	20g, 500g	10g, 20g, 300g	20g, 50g, 500g	10g	50g

**LOCTITE 406**  
 ➤ Rapid bonding of plastics, rubbers, including EPDM, and elastomers  
 ➤ LOCTITE SF 770 Polyolefin primer improves bonding on difficult-to-bond substrates

**LOCTITE 401**  
 ➤ General purpose  
 ➤ For acidic surfaces such as chromated or galvanised surfaces  
 ➤ For porous substrates such as wood, paper, leather, cork and fabric  
 P1 NSF Reg. No.: 123011

**LOCTITE 480**  
 ➤ For applications where shock resistance is required or shock or peel loads are present  
 ➤ Ideal for bonding metal to metal, rubber or magnets  
 ➤ Good resistance in humid environments

**LOCTITE 454**  
 ➤ General-purpose gel  
 ➤ Ideal use on vertical or overhead surfaces  
 ➤ Bonding paper, wood, cork, foam, leather, card, metals and plastics  
 P1 NSF Reg. No.: 123009

**LOCTITE 3090**  
 ➤ For applications with gaps up to 5mm  
 ➤ For applications where cosmetic appearance and low bloom are required  
 ➤ For porous substrates such as wood, paper, leather, cork and fabric

**LOCTITE 435**  
 ➤ High resistance to impact and shock loads, high peel strength  
 ➤ Bonding of plastics, rubbers, metals, porous and absorbent substrates and acidic surfaces  
 ➤ Good resistance in humid environments

**LOCTITE 4850**  
 ➤ For bonding materials subjected to bending or distortion, as well as flexible components  
 ➤ For porous and absorbent substrates and acidic surfaces

**LOCTITE 460**  
 ➤ For applications where cosmetic appearance and low bloom are required  
 ➤ For low odour during use  
 ➤ For porous substrates such as wood, paper, leather, cork and fabric

**LOCTITE 4090**  
 ➤ For structural applications where speed, gap filling and high temperature resistance are required  
 ➤ For outdoor applications and environments where excellent humidity resistance is required  
 ➤ For bonding materials subjected to impact, vibrations and shock loads



## Instant Adhesives

### Product Table

Part 1 of Table / Part2 Next Page

Product	Chemical basis	Viscosity	Colour	Fixture time	Substrates		
					Plastics / Polyolefins	Rubbers	Metals
LOCTITE 382	Ethyl	5,000 mPa-s	Colourless transparent	20 – 40 sec.	•/•*	•	•
LOCTITE 401	Ethyl	100 mPa-s	Colourless transparent	3 – 10 sec.	•/•*	•	•
LOCTITE 403	Alkoxy ethyl	1,200 mPa-s	Colourless transparent	5 – 20 sec.	•/•*	•	•
LOCTITE 406	Ethyl	20 mPa-s	Colourless transparent	2 – 10 sec.	••/••*	••	•
LOCTITE 407	Ethyl	30 mPa-s	Colourless transparent	5 – 20 sec.	•/•*	•	••
LOCTITE 408	Alkoxy ethyl	5 mPa-s	Colourless transparent	5 – 10 sec.	•/•*	•	•
LOCTITE 409	Ethyl	Gel	Colourless transparent	20 – 60 sec.	•/•*	•	•
LOCTITE 410	Ethyl	3,000 mPa-s	Black	30 – 60 sec.	•/•*	•	•
LOCTITE 414	Ethyl	90 mPa-s	Colourless transparent	2 – 10 sec.	•/•*	•	•
LOCTITE 415	Methyl	1,200 mPa-s	Colourless transparent	20 – 40 sec.	•/•*	•	••
LOCTITE 416	Ethyl	1,200 mPa-s	Colourless transparent	20 – 40 sec.	•/•*	•	•
LOCTITE 420	Ethyl	2 mPa-s	Colourless transparent	5 – 20 sec.	••/••*	•	•
LOCTITE 422	Ethyl	2,300 mPa-s	Colourless transparent	20 – 40 sec.	•/•*	•	•
LOCTITE 424	Ethyl	100 mPa-s	Colourless transparent	2 – 10 sec.	••/••*	••	•
LOCTITE 431	Ethyl	1,000 mPa-s	Colourless transparent	5 – 10 sec.	•/•*	•	•
LOCTITE 435	Ethyl	200 mPa-s	Colourless transparent	10 – 20 sec.	•/•*	••	••
LOCTITE 438	Ethyl	200 mPa-s	Black	10 – 20 sec.	•/•*	•	••
LOCTITE 454	Ethyl	Gel	Colourless transparent	5 – 10 sec.	•/•*	•	•
LOCTITE 460	Alkoxy ethyl	40 mPa-s	Colourless transparent	5 – 20 sec.	•/•*	•	•
LOCTITE 480	Ethyl	200 mPa-s	Black	20 – 50 sec.	•/•*	••	••
LOCTITE 493	Methyl	3 mPa-s	Colourless transparent	10 – 30 sec.	•/•*	•	••
LOCTITE 495	Ethyl	30 mPa-s	Colourless transparent	5 – 20 sec.	•/•*	•	•
LOCTITE 496	Methyl	125 mPa-s	Colourless transparent	10 – 30 sec.	•/•*	•	••
LOCTITE 3090	Ethyl	Gel	Colourless transparent	90 – 150 sec.	•/•*	••	•
LOCTITE 4090	Cyanoacrylate-epoxy hybrid	High	Off-white to light yellow	180 sec.	••/-	•	••
LOCTITE 4011 <sup>Med</sup>	Ethyl	100 mPa-s	Colourless transparent	3 – 10 sec.	•/•*	•	•
LOCTITE 4014 <sup>Med</sup>	Ethyl	2 mPa-s	Colourless transparent	10 – 30 sec.	•/••*	•	•
LOCTITE 4031 <sup>Med</sup>	Alkoxy ethyl	1,200 mPa-s	Colourless transparent	20 – 60 sec.	•/•*	•	•
LOCTITE 4061 <sup>Med</sup>	Ethyl	20 mPa-s	Colourless transparent	2 – 10 sec.	••/••*	••	•
LOCTITE 4062	Ethyl	2 mPa-s	Colourless transparent	2 – 5 sec.	••/••*	••	•
LOCTITE 4204	Ethyl	4,000 mPa-s	Colourless transparent	10 – 30 sec.	•/•*	•	••
LOCTITE 4601 <sup>Med</sup>	Alkoxy ethyl	40 mPa-s	Colourless transparent	20 – 60 sec.	•/•*	•	•
LOCTITE 4850	Ethyl	400 mPa-s	Colourless transparent	3 – 10 sec.	••/••*	••	•
LOCTITE 4860	Ethyl	4,000 mPa-s	Colourless transparent	3 – 10 sec.	•/•*	•	•

•• Well suited for

• Suited for

\* In combination with primer LOCTITE SF 770



## Instant Adhesives

### Product Table

Part 2 of Table / Part1 Previous Page

Product	Substrates		Properties		Pack sizes	Comments
	Porous and / or acidic surfaces	Service temperature range	Low odour / cosmetic appearance	Flexible / impact resistance		
LOCTITE 382		-40°C to +80°C		-/•	20g, 500g	General purpose, gel
LOCTITE 401	••	-40°C to +120°C			3g, 20g, 50g, 500g	Universal, low viscosity
LOCTITE 403	••	-40°C to +80°C	••/••		50g, 500g	Low bloom, low odour, medium viscosity, Health and Safety labelling free
LOCTITE 406		-40°C to +120°C			20g, 50g, 500g, 2kg	Plastics and rubber, low viscosity
LOCTITE 407		-40°C to +100°C			50g	High temperature, low viscosity
LOCTITE 408	••	-40°C to +80°C	••/••		20g, 500g	Low bloom, low odour, capillary, Health and Safety labelling free
LOCTITE 409		-40°C to +80°C			20g	General purpose, gel
LOCTITE 410		-40°C to +80°C		•/••	20g	Toughened, black, high viscosity
LOCTITE 414		-40°C to +80°C			20g	General purpose, high viscosity
LOCTITE 415		-40°C to +80°C			20g, 50g, 500g	Metals, high viscosity
LOCTITE 416		-40°C to +80°C			20g, 50g, 500g	General purpose, high viscosity
LOCTITE 420		-40°C to +80°C			20g, 50g, 2kg	General purpose, capillary
LOCTITE 422		-40°C to +80°C			20g, 50g	General purpose, high viscosity
LOCTITE 424		-40°C to +80°C			20g, 500g	Plastics and rubber, low viscosity
LOCTITE 431	••	-40°C to +80°C			20g, 500g	Universal, medium viscosity
LOCTITE 435	••	-40°C to +100°C		•/••	20g, 500g	Toughened, clear
LOCTITE 438	••	-40°C to +100°C		•/••	20g	Toughened, black, fast
LOCTITE 454	••	-40°C to +120°C			10g, 20g, 300g	Universal, gel
LOCTITE 460	••	-40°C to +80°C	••/••		20g, 50g, 500g	Low bloom, low odour, low viscosity, Health and Safety labelling free
LOCTITE 480		-40°C to +100°C		•/••	20g, 500g	Toughened, black, slow
LOCTITE 493		-40°C to +80°C			50g	Metals, capillary
LOCTITE 495		-40°C to +120°C			20g, 50g, 100g, 500g	General purpose, low viscosity
LOCTITE 496		-40°C to +80°C			20g, 50g, 500g	Metals, low viscosity
LOCTITE 3090	••	-40°C to +80°C	•/••		10g	Gap filling, 2K, low bloom
LOCTITE 4090		-40°C to +150°C	••/•	-/••	50g	Structural applications, high temperature and moisture resistance, gap filling
LOCTITE 4011 <sup>Med</sup>	••	-40°C to +80°C			20g, 454g	Universal, low viscosity
LOCTITE 4014 <sup>Med</sup>		-40°C to +80°C			20g, 454g	Plastics and rubber, capillary
LOCTITE 4031 <sup>Med</sup>		-40°C to +80°C	••/••		454g	Low bloom, low odour, medium viscosity
LOCTITE 4061 <sup>Med</sup>		-40°C to +80°C			20g, 454g	Plastics and rubber, low viscosity
LOCTITE 4062		-40°C to +80°C			20g, 50g, 500g	Plastics and rubber, capillary
LOCTITE 4204		-40°C to +120°C		•/••	20g	High temperature, good impact resistance
LOCTITE 4601 <sup>Med</sup>		-40°C to +80°C	••/••		454g	Low bloom, low odour, low viscosity
LOCTITE 4850	••	-40°C to +80°C		••/-	20g, 500g	Flexible, bendable, low viscosity
LOCTITE 4860	••	-40°C to +80°C		••/-	20g, 500g	Flexible, bendable, high viscosity

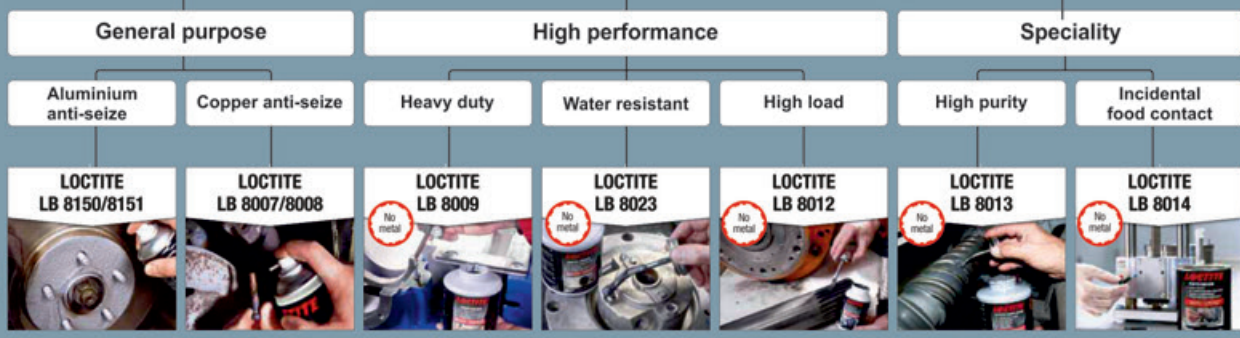


# Anti-Seizes

## Product Table



What type of Anti-Seize do you require?



Solution	LOCTITE LB 8150/8151	LOCTITE LB 8007/8008	LOCTITE LB 8009	LOCTITE LB 8023	LOCTITE LB 8012	LOCTITE LB 8013	LOCTITE LB 8014
<b>Colour</b>	Silver	Copper	Black	Black	Black	Dark grey	White
<b>Solid lubricating agent</b>	Aluminium, graphite, extreme pressure (EP) additives	Copper & graphite	Graphite & calcium fluoride	Graphite, calcium, boron nitride & rust inhibitors	MoS <sub>2</sub> & rust inhibitors	Graphite & calcium oxide	White oil and extreme pressure (EP) additives
<b>NLGI class</b>	1	0	1	1	2	-	0
<b>Service temperature range</b>	-30°C to +900°C	-30°C to +980°C	-30°C to +1,315°C	-30°C to +1,315°C	-30°C to +400°C	-30°C to +1,315°C	-30°C to +400°C
<b>Pack sizes</b>	LB 8150: 500g, LB 8151: 400ml aerosol	LB 8007: 400ml aerosol, LB 8008: 454g brush top	454g brush top	454g brush top	454g brush top	454g brush top	907g can

**LOCTITE LB 8150 can**  
**LOCTITE LB 8151 aerosol**  
 ● Heavy duty, temperature resistant, petroleum-based lubricant compound fortified with graphite and metallic flake  
 ● Inert and will not evaporate or harden in extreme cold or heat  
 ● For use in assemblies up to 900°C

**LOCTITE LB 8007 aerosol**  
**LOCTITE LB 8008 brush top**  
 ● Exclusive formula with copper and graphite suspended in a high quality grease  
 ● Protects metal parts from rust, corrosion, galling and seizing at temperatures up to 9

**LOCTITE LB 8009 brush top**  
 ● Metal-free  
 ● Excellent lubricity  
 ● Provides outstanding lubrication to all metals including stainless steel, aluminium and soft metals up to 1,315°C

**LOCTITE LB 8023 brush top**  
 ● Metal-free  
 Formulated to protect assemblies exposed directly or indirectly to fresh water and salt water, this anti-seize product works especially well in high humidity conditions  
 ● Has excellent lubricity, superior water wash-out spray resistance and prevents galvanic corrosion  
**ABS approved**

**LOCTITE LB 8012 brush top**  
 ● Metal-free  
 Formulated to protect assemblies during running-in period  
 ● Resists high static loads and MoS<sub>2</sub> paste ensures maximum lubricity

**LOCTITE LB 8013 brush top**  
 ● Metal-free  
 ● High purity formula with excellent chemical resistance  
 ● For stainless steel  
 ● Ideal for use in the nuclear industry  
**PMUC approved**

**LOCTITE LB 8014**  
 ● Metal-free  
 ● Prevents seizure, galling and friction in stainless steel and other metal parts up to 400°C  
**H1 NSF Reg. No.:123004**

# Dry Films and Oils

## Product Table



	Dry film lubricant				Oil				
	General purpose	Non-metal surface	Penetrating oil	Chain lubricant	Silicone oil	Cutting oil	All-round cutting fluid	General purpose	Special purpose
	LOCTITE LB 8191	LOCTITE LB 8192	LOCTITE LB 8001	LOCTITE LB 8011	LOCTITE LB 8021	LOCTITE LB 8030/8031	LOCTITE LB 8035	LOCTITE LB 8201	LOCTITE LB LM416
Solution									
Appearance	Black	White	Colourless	Yellow	Colourless	Dark yellow	Brownish liquid	Light yellow	Green
Base	MoS <sub>2</sub>	PTFE	Mineral oil	Synthetic oil	Silicone oil	Mineral oil	Emulsifier	Mineral oil	Mineral oil
Viscosity	11 s (Cup 4)	11 s (Cup 4)	4 cSt	11.5 cSt	350 mPa·s	170 cSt	Low	17.5 cSt (+50°C)	–
Service temperature range	11 s (Cup 4)	-180°C to +260°C	-20°C to +120°C	-20°C to +250°C	-30°C to +150°C	-20°C to +160°C	–	-20°C to +120°C	-10°C to +60°C
Load test 4 ball N (weld load)	–	–	1,200	2,450	–	8,000	–	–	–
Pack sizes	400ml aerosol	Not available in the U.K.	Not available in the U.K.	Not available in the U.K.	Not available in the U.K.	Not available in the U.K.	5 ltr / 20 ltr bucket	400ml aerosol	400ml aerosol, 4kg pail

**LOCTITE LB 8191**  
 ➤ MoS<sub>2</sub> anti-friction coating – aerosol  
 ➤ Quick drying  
 ➤ Surface protection against corrosion  
 ➤ Enhances the performance of oils and greases

**LOCTITE LB 8192**  
 ➤ PTFE coating  
 ➤ For non-metal and metal surfaces  
 ➤ Creates sliding surface for free movement  
 ➤ Prevents dust/dirt accumulation  
 ➤ Protection against corrosion  
 ➤ For conveyor belts, sideways and cams  
**H2 NSF Reg. No.: 122980**

**LOCTITE LB 8011**  
 ➤ High-temperature chain oil spray  
 ➤ Oxidation resistance prolongs lubricant service life  
 ➤ Lubricates open mechanisms, conveyors and chains at elevated temperatures up to 250°C  
**H2 NSF Reg. No.: 122978**

**LOCTITE LB 8021**  
 ➤ Silicone oil  
 ➤ Lubricates metal and non-metal surfaces  
 ➤ Suitable as release agent  
**H1 NSF Reg. No.: 141642**

**LOCTITE LB LM 416**  
 ➤ Biodegradable track lubricant  
 ➤ Superior corrosion protection  
 ➤ Applicable in any season  
 ➤ Long intervals between applications  
 ➤ Mainly used for slide chair lubrication  
 Approved by Network Rail, UK

**LOCTITE LB 8001**  
 ➤ Penetrating mineral oil spray  
 ➤ Multi-purpose penetrating oil for micro-mechanisms  
 ➤ Penetrates inaccessible mechanisms  
 ➤ Lubricates valve seats, collars, chains, hinges and cutting blades  
**H1 NSF Reg. No.: 122999**

**LOCTITE LB 8035**  
 ➤ Water-miscible and bactericide-free  
 ➤ With patented emulsifier system  
 ➤ Very good corrosion protection and high process economy  
 ➤ For drilling, turning, sawing, milling, threading, grinding  
 ➤ Suitable for a broad range of materials: steel, high-alloy steel, cast iron and non-ferrous metals, including brass and aluminium alloys

**LOCTITE LB 8030 bottle**  
**LOCTITE LB 8031 aerosol**  
 ➤ Cutting oil  
 ➤ Protects cutting tools in operation  
 ➤ Improves surface finish  
 ➤ Increases tool life  
 ➤ For drilling, sawing or tapping steel, stainless steel and most non-ferrous metals

**LOCTITE LB 8201**  
 ➤ Five-way spray  
 ➤ Frees assemblies  
 ➤ Lubricates metal  
 ➤ Cleans parts  
 ➤ Displaces moisture  
 ➤ Prevents corrosion



# ARDROX® anti-corrosion



## ARDROX AV 30

Penetrating, water displacing, corrosion inhibiting compound (CIC). Range of Use: Applied as a coating to protect metals commonly used in airframe structures and in aerospace components from corrosion. AV 30 can be used in all areas of the airframe on painted and unpainted surfaces.

AV 30 is a versatile CIC product. It combines good penetration properties with excellent corrosion inhibiting characteristics at low applied film weight. Movable parts should be masked before treatment unless spray application can be controlled to prevent direct contact. If AV 30 spray control or masking of movable components is not possible, then an alternative, soft waxy film CIC, such as AV 25 should be used.



## ARDROX AV 8

Super penetrating, water displacing, corrosion inhibiting compound (CIC). Forms a tack-free, firm film.

Range of Use: Applied as a coating to protect metals commonly used in airframe structures and in aerospace components from corrosion.

AV 8 can be used in all areas of the airframe on painted and unpainted surfaces. It combines good penetration properties with excellent corrosion inhibiting characteristics and a low applied film weight. In areas exposed to severe corrosion conditions AV 8 should be overcoated with AV 100D - a heavy duty, waxy, firm film CIC. Movable parts should be masked before treatment unless spray application can be controlled to prevent direct contact. If AV 8 spray control or masking of movable components is not possible, then an alternative, soft waxy film CIC, such as AV 25 should be used.



## ARDROX AV 25

Penetrating, water displacing, general purpose, corrosion inhibiting compound (CIC). Forms a soft, waxy film.

Range of Use: Applied as a coating to protect metals commonly used in airframe structures and in aerospace components from corrosion. AV 25 can be used in all areas of the airframe on painted and unpainted surfaces.

It is designed for the treatment of areas where a soft, lubricating film is required, for example pulleys, control cables and other movable components.







# Aerospace Polysulfide Sealants



## Aerospace Sealants Cross Reference

**PRC SEALANTS**

**NAFTOSEAL**

**ROYAL**  
ADHESIVES & SEALANTS

**A·C·TECH**  
Aerospace Sealants of Choice

NO.	PRC SEALANT	Naftoseal	Royal Sealant	AC tech	Specifications	Company	Description
1	PS 890 A	-	WS8020 A-1/2, A2	-	AMS-S-8802	Airbus	Integral Fuel Tank Sealant
2	PS 890 B	-	WS8020 B-1/2, B1, B2, B4	-	AMS-S-8802	Airbus	Integral Fuel Tank Sealant
3	PR 1750 B	-	WS8020 B-1/2, B1, B2, B4	-	AMS3276	Airbus	Integral Fuel Tank Sealant
4	-	-	WS8010 B-1/2, B2	-	AMS3284	Airbus	Access Door Sealant
5	PR 1422 A	MC-236 A-1/2, A-1, A-2	-	-	199-05-004	Agusta Westland	Integral Fuel Tank Sealant
6	PR 1422 B	MC-236 B-1/2, B-1, B-2, B-4	-	-	199-05-004	Agusta Westland	Integral Fuel Tank Sealant
7	-	-	-	AC-350 A-1/2, A2	DGQT 1.7.0.0115	Dassault Aviation	Integral Fuel Tank Sealant
8	-	-	-	AC-350 B-1/2, B2, B4	DGQT 1.7.0.0116	Dassault Aviation	Integral Fuel Tank Sealant
9	-	-	-	AC-240 B	PS-3 TABLE I	DeCrane Aircraft PATS AIRCRAFT, LLC	Integral Fuel Tank Sealant
10	-	-	-	AC-236 A	PS-3 TABLE I	DeCrane Aircraft PATS AIRCRAFT, LLC	Integral Fuel Tank Sealant
11	-	-	-	AC-665 C	PS-3 TABLE I	DeCrane Aircraft PATS AIRCRAFT, LLC	Corrosion Inhibitive Sealant
12	-	-	-	AC-250 B	PS-3 TABLE I	DeCrane Aircraft PATS AIRCRAFT, LLC	Quick Repair Sealant
13	-	-	-	AC-160	PS-3 TABLE I	DeCrane Aircraft PATS AIRCRAFT, LLC	Adhesion Promoter
14	-	-	-	AC-410	PS-3 4.3	DeCrane Aircraft PATS AIRCRAFT, LLC	low Vapor Pressure Purging Thinner
15	-	-	-	AC-665 C-12	PS-3 TABLE II 4.1 A	DeCrane Aircraft PATS AIRCRAFT, LLC	Corrosion Inhibitive Sealant
16	-	-	-	AC-236 A2	PS-3 TABLE II 4.1 AB	DeCrane Aircraft PATS AIRCRAFT, LLC	Integral Fuel Tank
17	-	-	-	AC-240 B2	PS-3 TABLE II 4.1 AB	DeCrane Aircraft PATS AIRCRAFT, LLC	Integral Fuel Tank (Fast Cure)
18	-	-	-	AC-250 B-1/6	PS-3 TABLE II 4.1 C	DeCrane Aircraft PATS AIRCRAFT, LLC	Quick Repair Sealant
19	-	-	-	AC-236 A-1/2	LES 1039 BV	learjet (Bombardier)	Integral Fuel Tank
20	-	-	-	AC-236 A2	LES 1039 BV	learjet (Bombardier)	Integral Fuel Tank
21	-	-	-	AC-236 B-1/2	LES 1039 BV	learjet (Bombardier)	Integral Fuel Tank
22	-	-	-	AC-236 B2	LES 1039 BV	learjet (Bombardier)	Integral Fuel Tank
23	-	-	-	AC-236 B4	LES 1039 BV	learjet (Bombardier)	Integral Fuel Tank





# Aerospace Polysulfide Sealants



## Aerospace Sealants Cross Reference

**PRC SEALANTS**

**NAFTOSEAL**

**ROYAL**  
ADHESIVES & SEALANTS

**A.C.TECH.**  
Aerospace Sealants of Choice

NO.	PRC SEALANT	Naftoseal	Royal Sealant	AC tech	Specifications	Company	Description
24	PR 1436 GB PS 870 B PR 1775 B	-	-	AC-665 B-1/2, B2	EMB 145 (MIL-PRF-81733)	EMBRAER	Corrosion Inhibitive Sealant
25	PR 1422 B PR 1440 B PS 890 B	-	-	AC-240 B-1/2, B2	EMB 145 (MIL-S-8802)	EMBRAER	Integral Fuel Tank (Fast Cure)
26	-	-	-	AC-236 A-1/2, A2	EMB 145 (51-20-01) S.R.M.	EMBRAER	Integral Fuel Tank
27	-	-	-	AC-240 B-1/4, B-1/2, B2	EMB 145 (51-20-01) S.R.M.	EMBRAER	Integral Fuel Tank (Fast Cure)
28	-	-	-	AC-250 A-1/6,	EMB 145 (51-20-01) S.R.M.	EMBRAER	Quick Repair Sealant
29	-	-	-	AC-250 B-1/6,	EMB 145 (51-20-01) S.R.M.	EMBRAER	Quick Repair Sealant
30	-	-	-	AC-665 B-1/2, B2	EMB 145 (51-20-01) S.R.M.	EMBRAER	Corrosion Inhibitive Sealant
31	PR 1771 B PR 1776 B PR 1782 B	MC-780 B-1	-	-	AIMS 04-05-001 -012, -014 & -015	Airbus France	Integral Fuel Tank (Fast Cure)
32	PR 148	MC-110	-	-	-	Airbus Germany	Adhesion Promoter
33	PR 148	MC-115	-	-	-	Airbus Germany	Adhesion Promoter for MC-780
34	PR 1403 G A-2	MC-216 A-2	-	-	DAN 1269	Airbus Germany	Low Adhesion/ Access Door
35	PR 1403 G B-2	MC-216 B-2	-	-	DAN 1270	Airbus Germany	Low Adhesion/ Access Door
36	PR 1422 B-2	MC-238 B-2	-	-	DAN 1186-06 AIMS 04-05-001	Airbus Germany	Integral Fuel Tank & Fuselage
37	-	MC-450 A-1/3	-	-	AIMS 04-31-001	Airbus Germany	Gap Filler for Floor Panels
38	PS 892 C	MC-630 C-2,C-3, C-12,C-48,C-60	-	-	DAN 1184 AIMS 04-05-001	Airbus Germany	General Purpose (Fuselage)
39	PR 1436 G A PR 1776 A	MC-630 A-2 (not grey)	-	-	DAN 1159 AIMS 04-05-001	Airbus Germany	General Purpose (Fuselage)
40	PR 1445 B-1	MC-650 B-1	-	-	DAN 1186-02 AIMS 04-05-001	Airbus Germany	General Purpose (Fuselage)
41	PR 1782 B	MC-770 B-1 B-2, B-2 grey	-	-	AIMS 04-05-001	Airbus Germany	General Purpose (Fuselage)
42	PR 1782 A	MC-780 A-1/2, A-1, A-2	-	-	AIMS 04-05-001 -012,-014 & -015	Airbus Germany	Integral Fuel Tank & Fuselage
43	PR 1782 B	MC-780 B-1/2, B-1, B-2, B-4	-	-	AIMS 04-05-001 -012,-014 & -015	Airbus Germany	Integral Fuel Tank & Fuselage
44	PR 1782 C	MC-780 C-1/3, C-2, C-4, C-12	-	-	AIMS 04-05-001& -012,-014 & -015	Airbus Germany	Integral Fuel Tank & Fuselage



# Aerospace Polysulfide Sealants



## Aerospace Sealants Cross Reference

**PRC SEALANTS**

**NAFTOSEAL**

**ROYAL**  
ADHESIVES & SEALANTS

**A.C.TECH.**  
Aerospace Sealants of Choice

NO.	PRC SEALANT	Naftoseal	Royal Sealant	AC tech	Specifications	Company	Description
45	PR 1782 C	MC-780 C-24, C-36, C-48, C-60	-	-	AIMS 04-05-001&-012,-014 & -015	Airbus Germany	Integral Fuel Tank & Fuselage
46	PR 1782 A	MC-780 A-1/2, A-1, A-2	-	-	AIMS 04-05-001&-012,-014 & -015	Airbus Spain	Integral Fuel Tank & Fuselage
47	PR 1782 B	MC-780 B-1/2 B-1, B-2, B-4	-	-	AIMS 04-05-001&-012,-014 & -015	Airbus Spain	Integral Fuel Tank & Fuselage
48	PR 1782 C PS 892 C	MC-780 C-1/3 C-2, C-4, C-12	-	-	AIMS 04-05-001&-012,-014 & -015	Airbus Spain	Integral Fuel Tank & Fuselage
49	PR 1782 C PS 892 C	MC-780 C-24, C-36, C-48, C-60	-	-	AIMS 04-05-001&-012,-014 & -015	Airbus Spain	Integral Fuel Tank & Fuselage
50	PR 184	MC-110	-	-	ABP 4-5141, 4-5142	Airbus UK	Adhesion Promoter
51	PR 184	MC-115	-	-	ABP 4-5141, 4-5142	Airbus UK	Adhesion Promoter
52	PR 1403 B-2 PR 1428 B-2	MC-216 B-2	-	-	ABP 4-5141, 4-5142	Airbus UK	Low Adhesion/ Access Door
53	PR 1422 A PR 1783 A	MC-238 A-1/2, A-2, A-4	-	-	AIMS 04-05-001&002, ABP 4-5141, 4-5142	Airbus UK	Integral Fuel Tank & Fuselage
54	PR 1422 B	MC-238 B-1/2, B-2, B-4	-	-	AIMS 04-05-001&002, ABP 4-5141, 4-5142	Airbus UK	Integral Fuel Tank & Fuselage
55	PR 2001 B	MC-770 B-2 grey	-	-	AIMS 04-05-001 ABP 4-5142	Airbus UK	General Purpose (Fuselage)
56	PR 1782 A	MC-780 A-1/2, A-1, A-2	-	-	AIMS 04-05-001 -012,-014,-015, ABP 4-5141, 4-5142	Airbus UK	Integral Fuel Tank & Fuselage
57	PR 1782 B PR 2001 B	MC-780 B-1/2 B-1, B-2, B-4	-	-	AIMS 04-05-001 -012,-014,-015, ABP 4-5141, 4-5142	Airbus UK	Integral Fuel Tank & Fuselage
58	PR 1770 C PR 1782 C	MC-780 C-1/3, C-2, C-4, C-12	-	-	AIMS 04-05-001 -012,-014,-015, ABP 4-5141, 4-5142	Airbus UK	Integral Fuel Tank & Fuselage
59	PR 1770 C PR 1782 C	MC-780 C-24 C-36, C-48, C-60	-	-	AIMS 04-05-001 -012,-014,-015, ABP 4-5141, 4-5142	Airbus UK	Integral Fuel Tank & Fuselage
60	PR 1771 B	MC-780 B-1/2 B-2, B-4	-	-	HMRC 0110	Aircelle, France	Integral Fuel Tank & Fuselage
61	PR 1422 A	MC-238 A-1/2, A-2	-	-	NTA 65361	Alenia. Italy	Integral Fuel Tank & Fuselage
62	PR 1422 B PR 1782 B	MC-238 B-1/2, B-2	-	-	NTA 65361	Alenia. Italy	Integral Fuel Tank & Fuselage
63	PR 1782B	MC-780 B-1/ 2, B-2, B-4	-	-	NTA 65361	Alenia. Italy	Integral Fuel Tank & Fuselage
64	PR 1782 C	MC-780 C-12, C-24, C-48	-	-	NTA 65361	Alenia. Italy	Integral Fuel Tank & Fuselage





# Aerospace Polysulfide Sealants



## Aerospace Sealants Cross Reference

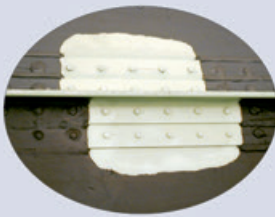


NO.	PRC SEALANT	Naftoseal	Royal Sealant	AC tech	Specifications	Company	Description
65	PR 1422 A PR 1440 A PR 1776 A	MC-238 A-2	-	-	MDL 6057	Alenia Aermacchi, Italy	Integral Fuel Tank & Fuselage
66	PR 1422 B PR 1440 B PR 1776 B	MC-238 B-2	-	-	MDL 6057	Alenia Aermacchi, Italy	Integral Fuel Tank & Fuselage
67	PR 1422 A PR 1440 A PR 1776 A	MC-780 A-2	-	-	MDL 6058	Alenia Aermacchi, Italy	Integral Fuel Tank & Fuselage
68	PR 1422 B PR 1440 B PR 1776 B	MC-780 B-2, B-4	-	-	MDL 6058	Alenia Aermacchi, Italy	Integral Fuel Tank & Fuselage
69	PS 892 C	MC-780 C-2, C-4	-	-	MDL 6058	Alenia Aermacchi, Italy	Integral Fuel Tank & Fuselage
70	PS 870 B	MC-780 B-1/2, B-2	-	AC 665 AC 735 B	BAMS 552-008	Bombardier Canada	Fast Cure Fuselage
71	PR 1776 B	MC-780 B-1/2, B-2	-	-	BAMS 552-009	Bombardier Canada	Fast Cure Fuselage
72	PR 1776 B PR 1422 B PR 1440 B PS 870 B PR 2050 B	MC-780 B-1/2, B-2	-	-	MEP 09-084 NE-040-134	Embraer, Brazil	Integral Fuel Tank & Fuselage
73	PS 870 C	MC-780 C-2, C-4 C-12, C-24	-	-	MEP 09-084 NE-040-134	Embraer, Brazil	Integral Fuel Tank & Fuselage
74	PR 1422 A-2	MC-236 A-2	-	-	WL 5.5901.2	Eurocopter Deutschland	Integral Fuel Tank & Fuselage
75	PR 1422 B-2	MC-236 B-2	-	-	WL 5.5901.2	Eurocopter Deutschland	Integral Fuel Tank & Fuselage
76	PR 1771 B	MC-780 B-1	-	-	ECSL 2339	Eurocopter France	Fuselage Sealant
77	PR 1440 A PR 1422 A	MC-238 A	-	-	NP 192 001	Piaggio, Italy	Integral Fuel Tank & Fuselage
78	PR 1440 B PR 1422 B	MC-238 B	-	-	NP 192 001	Piaggio, Italy	Integral Fuel Tank & Fuselage
79	PR 1440 B PR 1422 B	MC-780 B	-	-	NP 192 001	Piaggio, Italy	Integral Fuel Tank & Fuselage
80	PR 1440 A PR 1422 A	MC-780 A	-	-	NP 192 001	Piaggio, Italy	Integral Fuel Tank & Fuselage
81	PS 892 C	MC-780 C-2, C-12, C-24, C-48	-	-	NP 192 001	Piaggio, Italy	Integral Fuel Tank & Fuselage
82	PS 892 C	MC-630 C-2, C-3, C-12, C-48	-	-	NP 192 002	Piaggio, Italy	Integral Fuel Tank & Fuselage
83	PR 147 PR 148 PR 184	MC-110	-	-	NP 192 002	Saab	Adhesion Promoter
84	PR 1422 B PR 1440 B PR 1776 B	MC-238 B-2	-	-	-	Saab	Integral Fuel Tank & Fuselage

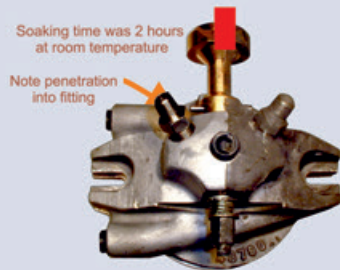
It is a product that no MRO, FBO facility should be without.

## PolyGone 310 - AG Polysulfide Sealant Removal

### Interior of an aircraft fuel tank



### Cleaning a Polysulfide Mix Head



### Polygone at Work



### Some of Airframes Using PolyGone

- ✦ B-727
- ✦ Fairchild Metro
- ✦ Embraer
- ✦ B-737
- ✦ C-5 Galaxy
- ✦ Beech
- ✦ B-757
- ✦ ATR-42
- ✦ Grumman
- ✦ DC-10
- ✦ CRJ 100/200/700/900
- ✦ King Air
- ✦ MD-11
- ✦ Challenger
- ✦ Mooney
- ✦ Falcon
- ✦ Lear ...& F-16
- ✦ Cessna
- ✦ A-340
- ✦ Twin Commander
- ✦ Hawker

## PolyWipes AG (Aviation Grade)

### Technical Data Sheet

#### Description

PolyWipes are a unique non-woven fabric impregnated with a non-toxic aqueous solution designed to safely remove uncured or partly cured adhesives, sealants, including polysulfide and silicone, greases, oils, and other contaminants.

PolyWipes proprietary aqueous formulation is designed to reduce surface tension between the material and the substrate. Once reduced, the wipe picks up the material from the substrate for easy disposal. Since PolyWipes are non-toxic they eliminate the need to use hazardous solvents in the workplace.

#### Advantages

- ✦ Non-toxic
- ✦ Non-flammable
- ✦ Non-hazardous-Not subject to dangerous goods regulations.
- ✦ No phosphates, acids or silicones
- ✦ Neutral pH of 6-7
- ✦ Fresh smell – NOT citrus



#### Application

PolyWipes are intended for use at room temperature (68°F-80°F). They can be used to clean up after applying sealant to fuel tanks, access doors, windshields or any other location where sealants are used.

#### Directions for Use

Remove wipe from container and fully open the wipe. Place wipe over sealant to be "picked up". Use one hand and press down on the surface next to the sealant. Rotate hand and flick the material off the surface. Fold the towelette on itself and continue until the sealant is removed. Dispose of towel when finished.

<b>Package Sizes</b>	150-wipe poly containers 4 x 150-wipe poly container cases	
<b>Shelf Life</b>	2-years	
<b>Storage</b>	Do not store under 35°F/2C and not above 122°F/50C. Do not use below 35°F/2C	
<b>Properties</b>		
<b>NFPA Hazard Class:</b>	Health 0	VOC: Not tested
	Flammability 0	pH: >6 <7
	Reactivity 0	Flash point: N.A.



## High Performance Paints and Coatings for Turbine & Aero Engine Production and Overhaul



### Engineered Paints and Surface Coatings

**IP1041 Aluminium Silicon Diffusion Coating for High Temperature Protection against Sulphidation.**

**MSRR 1041, OMat 7/129A**

It is used as an alternative to Sermalloy J.

**IP9253-R2 High Heat Chrome Free Organic Sacrificial Aluminium Coating.**

**MSRR 9253, OMat 7/126B, COMAT 07-104 (Alt to PL 219 - 3863 - A 6000)**

Used on aero engine and other components as an organic sacrificial coating up to 600° C.

**IP9138R1 High Heat Resistant Air Drying Aluminium Coating**

**MSRR 9040 (Alt to PL 82 - E 3592) OMat 7/22B MTU - Mt 1254, WHPS402**

Air drying, organic coating with resistance to heat, corrosion, and aircraft fluids. For use on steel, aluminum, and other metal parts.

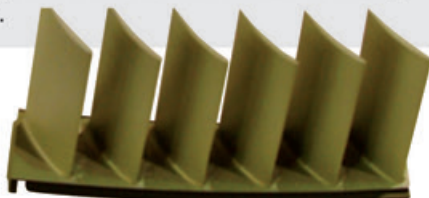
**IP9138R1 / Aerosol**

**MSRR 9040, OMat 7/22B**

Aerosol version suitable for both cosmetic touch and as a high temperature coating. Supplied in 400ml Cans.

**IP9188-R2 Erosion and Heat Resisting Coating**

Applied to engine parts of steel and aluminum, it is best recognized in the air intake of many Rolls engines.



**PL177 Touch-up Coating**

**MSRR 9141; OMat 7/47**

Corrosion resistant coating designed for use as a touch up for 560°C processed Ipcote, on ferritic stainless steel aeroengine and turbine components operating to 600°C, and corrodible steel components to 500°C.

**PL270 Touch-up Coating for Ipseal Khaki**

**MSRR 9394; OMat 7/169A**

Inorganic airdrying brushing touch-up coating for Ipseal Khaki.

**PL150-R1 Touch-up Coating for Ipseal Green**

**MSRR 9041; OMat 7/169B, Number 7/110B, SMM 916**

Inorganic airdrying brushing touch-up coating for Ipseal Green.

**PL163 Clear High Heat Polyimide Aero Engine Coating**

**MSRR 9142, OMat 7/134; AFS 1566; NSN 8010 99 05 16491; (IP 9144)**

Clear stoving coating for use on aero engines. It also confers erosion and corrosion resistance. Used on engines such as the RB211.

**IP9134R1 Aluminium Polyimide Engine Coating**

**MSRR 9134. NSN 99 1925127 (Alt to PL 165) OMat 7/136B**

Aluminum filled stoving coating for spray application to aeroengine components.



**Metal Protective Varnishes (Stoving Versions) (Aerolac Alternatives)**

**MTU - MTS 1026A**

IP9140 Clear Comply with the requirements of withdraw specifications MSRR 9051 OMat 712A and OMat 710

IP9149 Aluminium Comply with the requirements of withdrawn specifications MSRR 9051 and OMat 729B

IP9155 , Comply with the requirements of withdrawn specifications MSRR 9051 and OMat 701A

Stoving, anti-corrosive coatings especially suitable for a wide range of metals including light alloys of magnesium and aluminium.

**Metal Protective Varnishes (Air Drying versions)**

Comply with requirements of withdrawn specification MSSR 9037

IP9169 OMat 7/24A Air Drying Metal Touch Up Clear (Alternative to 1721-C-8187-CO 5187, CV114)

IP9170 OMat 7/35A Air Drying Metal Touch Up Grey 693 (Alternative to 1721-D-6930-CO 5153/693)

IP9173 OMat 709 Air Drying Metal Touch Up Black (Alternative to 1721-X-9520-CO 5152)

These materials are used for overspraying and touching unprotected parts on engines, and damaged areas on cadmium plated parts.

**IP1043, Compressor Blade Sealing Compound - High Temperature**

**MSRR 1043, OMat 844A**

Water based green ceramic coating for aero engines and compressors. Spray applied, it is effective to 850°C. Used on nickle based alloys to prevent against " Green rot" oxidation.

**PL95 Mica Impregnated Insulating Coating**

**MSRR 9054, OMat 773**

An excellent insulating coating for spray application to aero engine components.

**PL134 R2 Ceramic Blade Coating to 850°C**

**MSRR 9176, OMat 7/75**

Water based green ceramic coating for aero engines and compressors. Spray applied, it is effective to 850°C. Used on nickel based alloys to prevent against "Green rot" oxidation.

**IP9181 A+B Air Drying Intumescent**

**BSX38; MSRR 1055 , OMat 7/28B**

Formulated to run at 180°C and be air curable, replacement for PL161.

**IP1897 A and B Air Drying Intumescent; Low Temperature Capability**

**BSX37; Goodrich 1897**

Modified grade of IP9189, formulated to remain flexible at -40°C, for use on fuel pumps manufactured by Goodrich.

**IP1265 Thermal Ceramic Barrier**

Is in use on the latest Aquada Sports car, and being appraised by aerospace companies including GKN for use on de-icing equipment.

**Two Pack Epoxy Air Drying Coatings**

IP3 range; ultra low VOC; xylene/toluene free (<200gm/litre)

IP9064 series; standard VOC

BSX 33, Def-Stan 80-161 (DTD 5555);

MSRR 9064 and several manufacturer specs.

(Alternative to SL 5459, 9110-X-0000, CSH 5538 etc)

**IP6 Two Pack Low VOC Polyurethane Air Drying Coatings**

**BS2X34 A/B; MSRR 1006, PRO 599, PCS 2530, HCP 355 plus several manufacturer specifications**

Low VOC <420gm/liter, 2 pack polyurethane finishes with good erosion, UV and Chemical resistance. Normal top coat for air frames.

**IP714 and IP715 Low VOC Chromate Free Engine Coating System**

**PWA 36568; CPW 714 (IP714 primer) and PWA 36569. CPW 715 (IP715 Finish)**

Low VOC; chromate free anti-corrosive primer and topcoat system; xylene and toluene free.

For use on steel, aluminum, sealed magnesium and most composites.

**PL146-PL168-R1 High Heat Resistant Paints**

**MSRR 9041 ,SMM 916 , OMat 7/110A**

Spraying, (brushable on small areas), inorganic paint used for example on the hot end of BAe tornado.





## Dry Film Lubricants

### PL237-R2 Molybdenum Based Dry Film Lubricant

**MSRR 9274, RAE (F) LV/486/265, RPS 242. OMat 4/43  
NSN:91-5099-430-9538**

Molybdenum disulphide pigmented spraying product for operating in adverse conditions to 300 °C with resistance to lubricants, skydrol, and corrosive engine by products.

### IP9136-R1 / R3 / R4 Graphite Based Dry Film Lubricant

**CPW 27, MSRR 9276, RPS 242. OMat 4/44C ;  
Comat 10-002 (Alt to PL 239, 3862-X-9010)**

Spraying graphite lubricant resistant to skydrol lubricants, and corrosion to 400°C.

### PL181 High Temperature Inorganic Boron Nitride Dry Film Lubricant

**MSRR 9200, Def 91-19, OMat 4/36**

Speciality dry film lubricant designed to operate at temperatures up to 700°C.

### PL470 Rapid DFL Repair Kit

**OMat 4/70**

Newly developed rapid repair MoS<sub>2</sub>, dry film lubricant touch up kit developed in conjunction with Rolls Royce.

### IP3016 Tungsten Disulphide High Temperature DFL

**MSRR 3016, OMat 4/80**

Developed for high heat applications, in excess of 400°C. Excellent resistance to fretting or galling.

### IP9286 Range of PTFE filled Polyimide Coatings

**MSRR 9286, OMat 7/95A**

Used as an erosion resistant material, or for lubrication, for example in hinge pins and under carriage assembly.

## Attrition Coatings

### NML 46 Thick Film Attrition Coating: Pre-Mixed 2 Component Product, Supplied as a Stable Frozen Stick

**MSRR 9012, RPS 340 (I9100), OMat 7/78**

Used on the interior of engine compressor components, aluminium, steel, and titanium it is resistance to oils, fuels, and abrasion.

### NML 52 Primer Adhesive for Attrition Coatings

**MSRR 9072 (IP9100), OMat 7/82**

A clear adhesive for use with the thick film attrition coating NML 46.

### NML 40 Cold Curing Attrition Coating

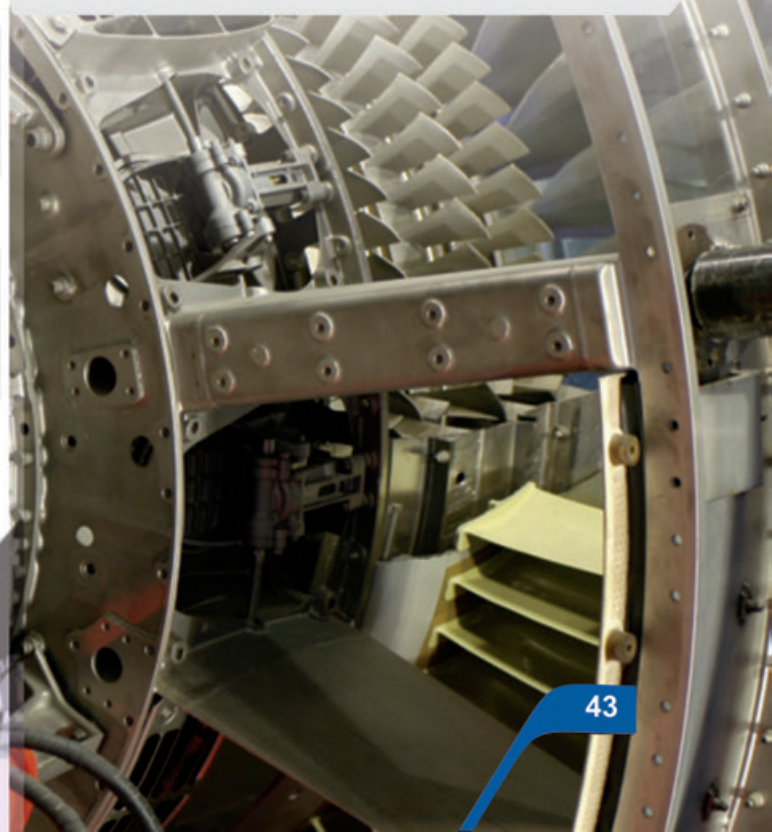
**OMat 863**

A two part cold curing attrition compound developed for local repair and field use where stoving facilities are not available.

### NML 58 Extended Shelf Life Two Part Attrition Coating

**RPS 340 (IP9103) ,OMat 7/77**

Two pack system developed as a long shelf life field overseas replacement for NML40. Used on engine compressor components.





**The Ipcote Range of Sacrificial Aluminium Coatings****Basecoats****Ipcote IP9183-R1**

**MSRR 9140; OMat 7/46B; PCS2550; LB598;  
ITP SMM-903 , Nato:8030-99-406-7055**

The original sacrificial basecoat.  
Used as a replacement / alternative to Sermetal W/WFX

**Smoothcote IP9442****LB598; CPW88**

A smooth surface alternative to IP9183-R1,  
manufactured using smaller particle size aluminium  
powder. Gives a denser, more erosion resistant  
product, with similar corrosion protection to IP9183-R1.

**Ipthin IP9356**

**MSRR 9356; ITP SMM-919  
OMat 7/167A and Nato: 8030-99-864-6844**

Thin film version of Ipcote, to allow easy application  
of film thickness of 12-25 microns. This is of use in  
areas where tolerances are critical, including  
interference fit joints, flanges, bolts, engine mounts,  
fasteners and dovetails.

**Chrome Free Systems**

**IP9253-R2 OMat 7/126B and COMAT 07-104  
MSRR 9253**

Stoving, spray applied high heat resisting  
aluminium filled coating, for use on engine  
components operating at up to 600°C (1115°F)  
on 12% Chromium Steel or 500°C (930°F) on  
low alloy steels which are subjected to harsh  
media such as phosphate ester based hydraulic  
fluids.

**Sealcoats****Ipseal IP9184 Green and Khaki**

**MSRR 9140; OMat7/168B; LB598; ITPSMM-903;  
PCS 2550**

High temperature sealing compound used  
over Ipcote, Ipthin. For use at temperatures  
in excess of 600°C. Can also been used as a  
stand alone product. Used as alternatives to  
Sermetal 570A.

**Smoothseal IP 9444**

**MSRR 3010, OMat 7/262**

Very smooth, thin seal coat, used over either  
Smoothcote or Ipcote as an alternative to  
Sermetal 5380/5380DP.

**Organic Seal coat Blue IP1949**

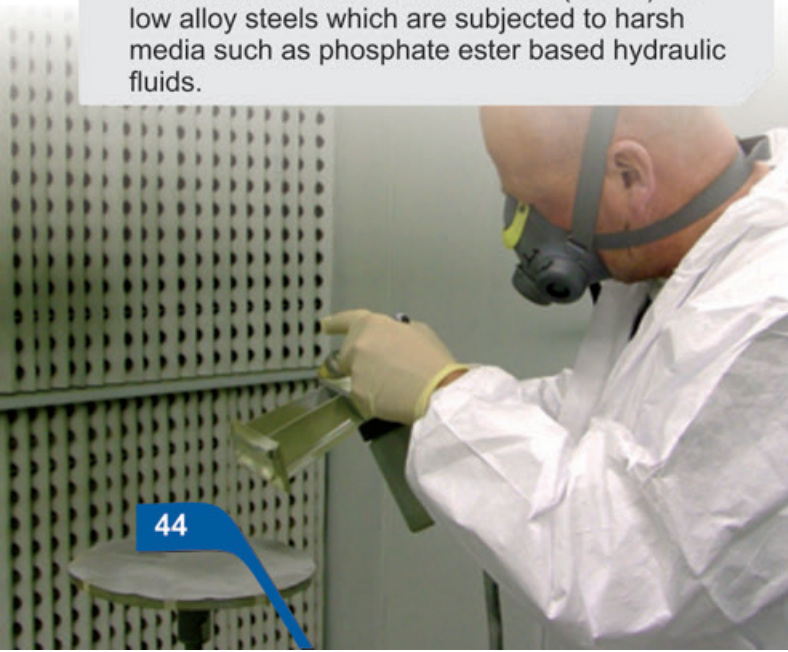
**PWA 595**

Chrome free, heat and corrosion resistant  
sealcoat developed specifically for Standard  
Aero to give a very fine surface finish.  
Will also pass to CPW 563.

**Organic Sealcoat J900**

**CPW 563**

Developed for use as a chrome free  
alternative sealcoat for use on Pratt &  
Whitney Canada range as an alternative  
to the 5380 range.







## Coating Systems for Composites

Primers, Fillers and Finishes; Intumescent; Thermal Barrier and Fire Resistant; Erosion Resistant

- Primer-Surfacer IP3-00015
- Lightweight Primer-Filler IP3-00019
- IP3-00020 Low VOC Epoxy In-Mould Primer
- IP6 Range of Low VOC Polyurethane topcoats
- IP6-FR Grade, use on aircraft interior parts and over intumescent coatings.
- IP3 Range, Epoxy topcoat for Composites
- IP9189A/B , 2 Component Epoxy Intumescent
- IP1265, Thermal Intumescent Coating
- IP5632 Conductive Matt Black
- EROS range of Elastomeric Polyurethanes

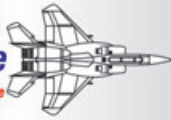


Engine nose cone coated with 2 component sealer plus EROS Elastomeric top coat.



Product Code	Description	Pack Size	Specifications
<b>IP6 Range</b>			
IP6-6373	2pK p/u Matt Medium Sea Grey	5 Litre	MSRR 1006, BS2X34 A & B, BS381C
IP6-CAT	Catalyst for IP6 Range	1 Litre	MSRR 1006, BS2X34 A & B, OMat 7/155A, SP101722, HCP 355
<b>Rockhard Range</b>			
665-550-025	Rockhard Standard Thinner	5 Litre	MSRR 9226, MSRR 9228, DTD 5562, DTD 56D, P & W Canada: CPW 489/CPMC GEA8B84X1, PWA36490, OMat 7/150 and NGPS 69
665-550-025	Rockhard Standard Thinner	1 Liter	MSRR 9226, MSRR 9228, DTD 5562, DTD 56D, P & W Canada: CPW 489/CPMC GEA8B84A1, OMat 7/150; OMat 7/156A and NGPS 69
700-155-003	Rockhard Chromate Primer	5 Litre	MSRR 9226, OMat 7/98A, AFS 538, IFC30-115-01 MD, Issue 2 Aerospace S26 3506 NATO, ABP 4-2131
985-000-693	Epoxy Stoving A/C Grey	1 Litre	MSRR 9226, OMat 7/99A, DTD 5562, AFS 5560, FW02651
<b>PL Range</b>			
PL470	DFL Lubricant - MOQ 10 x 125ml	125 ml	OMat 4/70
PL152-R1	H/T Marking Black	500 ml	MSRR 9041 Spray, MSRR 9285 Brush, SMM 916, OMat 7/110C
PL153	H/T Marking Grey	500 ml	MSRR 9041 Spray, MSRR 9285 Brush, SMM 916, OMat 7/110D
PL155-R1	H/T Marking Orange	500 ml	MSRR 9041 Spray, MSRR 9285 Brush, SMM 916, OMat 7/110E
PL163	Clear Polyimide Coat	1 Litre	MSRR 9142, OMat 7/134 NSN: 8010-99-051-6491
PL198	Thixotropic Dry Film Lubricant	1 Litre	N/A
PL224	High Temperature Sealing Compound	1 Kg	MSRR 9298, OMat 844
PL237-R2	Molybdenum Dry Film Lubricant	1 Litre	MSRR 9274, OMat 4/43 NSN: 9150-99-430-9538
<b>Alpha</b>			
Adiprene-LW520	Erosion Resistant Coating	1 Kg	MSRR 9212, OMat 8/50, Co-Mat 08-069
Ethacure-100	Erosion Resistant Coating Hardener	1 Kg	MSRR 1040, OMat 8/172



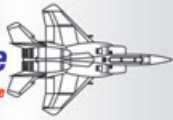


Product Code	Description	Pack Size	Specifications
S030	N-Methyl-2-Pyrrolidone	1 Litre	MSRR 9134, MSRR 9142, OMat 7/96A, OMat 7/184, OMat 7/137A
S030	N-Methyl-2-Pyrrolidone	5 Litre	MSRR 9134, MSRR 9142, OMat 7/96A, OMat 7/184, OMat 7/137A
<b>IP Range</b>			
IP1041	Ipal Diffusion Coating	1 Litre	MSRR 1041, OMat 7/129A
IP-714-2-A Kit	2 Pack Epoxy Anti-Corrosive Primer	4 Litre Kit	CPW 714, PWA 36568
IP-715-Reducer	Thinner for IP-714 & IP-715	5 Litre	CPW 714 & 715, PWA 36568, 36569, PWA 36106
IP2878B	Black self phosphating coating for metals (Required thinner 665-550-021, 1 liter for each 5 liter paint) One part product. Catalyst is not required. shelf life: 12 months Temperate; 6 months Tropical.	5 Litre	PWA 578; Nato: 8010-99-258-2056 and AVP 3-013
IP9029-R3	HH Aluminium Stoving	5 Litre	MSRR 9029, OMat 7/1D PWA 578; Nato: 8010-99-258-2056 and AVP 3-013
IP9039	Rockhard Catalyst	1 Litre	PWC 07-039, PWC 03055, CPMC 71331
IP9041	Rockhard Clear Base	1 Litre	PWC 07-038, PWC 03055, CPMC 71331
IP9134-R1	Aluminium Loaded Polyamide	5 Litre	MSRR 9134, OMat 7/136B
IP9136-R1 IP9136-R3 IP9136-R4	Dry Film Lubricant - PL239 Equivalent	1 Litre	MSRR 9276, OMat 4/44C, CPW 27, PWA 27, PWC07-044A, PCS 5022
IP9138-R1	A/D H.T Aluminium	1 Litre	MSRR 9040, OMat 7/22B
IP9138-R1	A/D H.T Aluminium	5 Litre	MSRR 9040, OMat 7/22B
IP9140	Metal Protective Varnish Clear	5 Litre	MSRR 9051, OMat 712A
IP9151	Thinner (SV16 Alternative)	1 Litre	OMat 7/183 MSRR 9029, MSRR 9032, MSRR 9040, MSRR 9054, MSRR 9169, MSRR 9180, MSRR 9187, MSRR 9188, MSRR 9253, MSRR 9274, MSRR 9276, MSRR 9306, RR Code 139403
IP9151	Thinner (SV16 Alternative)	5 Litre	OMat 7/183 MSRR 9029, MSRR 9032, MSRR 9040, MSRR 9054, MSRR 9169, MSRR 9180, MSRR 9187, MSRR 9188, MSRR 9253, MSRR 9274, MSRR 9276, MSRR 9306, RR Code 139403



Product Code	Description	Pack Size	Specifications
IP9155	Metal Protective Varnish Green	5 Litre	MSRR 9051, OMat 701A
IP9163	Orange 1 Part Tank Coating	5 Litre	N/A
IP9169	AD Touch Up Clear	1 Litre	OMat 7/24A
IP9183-R1	Ipcode H/T Sacrificial Coating	1 Litre	MSRR 9140, OMat 7/46B, SMM-903/01, A50TF1, Class E
IP9184-Green	Ipséal H/T Inorganic Green	1 Litre	MSRR 9140, OMat 7/168G, SMM 903/02, A50TF196, Class F
IP9184-Khaki	Ipséal H/T Inorganic Khaki	1 Litre	MSRR 9140, OMat 7/168B, SMM 903/02, A50TF196, Class E
IP9188-R2	H.H Erosion Coating White	5 Litre	MSRR 9188, OMat 7/5E
IP9253-R2	PL219 Equivalent, H/H Resistant	5 Litre	MSRR 9253, OMat 7/126B, Co-Mat 07-104
IP9286-6002	Green Low Friction Coating	5 Litre	OMat 7/95A
IP9356	Ipthin Thin Film Sacrificial Aluminium	5 Litre	MSRR 9356, OMat 7/167A
<b>IP9064 Range</b>			
IP9064-0000	2 Pack Epoxy Gloss White	5 Litre	MSRR 9064, DTD 5555A, OMat 795A, Co-Mat 07-007A, Def Stan 80-161
IP9064-3560-R1	2 Pack Epoxy Gloss Yellow	5 Litre	MSRR 9064, DTD 5555A, OMat 799A, Def Stan 80-161
IP9064-5380	2 Pack Epoxy Lead Free Cherry Red Gloss	5 Litre	MSRR 9064, DTD 5555A, OMat 792A, Def Stan 80-161
IP9064-6362	Strontium Chromate Primer	4 Litre	MSRR 9064, DTD 5555A, Def Stan 80-161, MSRR 1006; OMat 766A; BSX33 TY A+B; HCP 355
IP9064-6930	2 Pack Epoxy Aircraft Grey Gloss	5 Litre	MSRR 9064, DTD 5555A, OMat 789A, Def Stan 80-161
IP9064-6933	2 Pack Epoxy Matt Aircraft Grey	5 Litre	MSRR 9064, DTD 5555A, OMat 7/186
IP9064-8000	2 Pack Epoxy Dull Aluminium	5 Litre	MSRR 9064, DTD 5555A, OMat 7/39A, ECS7029
IP9064-8010	2 Pack Epoxy Bright Aluminium	5 Litre	MSRR 9064, DTD 5555A, OMat 7/144A, Def Stan 80-161
IP9064-9003	2 Pack Epoxy Matt Black	1 Litre	MSRR 9064- DTD 5555A, OMat 7/171A, Def Stan 80-161





Product Code	Description	Pack Size	Specifications
IP9064-10A03	2 Pack Epoxy Coating Flake Grey (Queens Flight) Mixing Ratio: 2:1 Required Catalyst: IP9064-CAT	5 Liter	MSRR 9064, DTD 5555A, OMat 7/160A,
IP9064-CAT	Catalyst for 2 Pack Epoxy Range	1 Litre	MSRR 9064, MSRR 1006, Def Stan 80-161A, BSX33 A & B, Def Stan 80-161 OMat 7/161A and OMat 766A, DTD555A, HCP355, ECS 702, DTD 555A
IP9064-CAT-MATT	Matt Catalyst for 2 Pack Epoxy	5 Litre	MSRR 9064, DTD 5555A, OMat 7/235, Def Stan 80-161
IP9064-CLEAR	2 Pack Epoxy Clear Gloss Required Catalyst: IP9064-CAT Required Thinner: IP9064-THIN Mixing Ratio: 1 part base 1 part catalyst	5 Litre	MSRR 9064, DTD 5555A, OMat 790A, Def Stan 80-161
IP9064-THIN	Thinner for 2 Pack Epoxy	1 Litre	MSRR 9064, MSRR 1006, OMat 793A, DTD 5555A, Stan 80-161 HCP 355
IP9064-THIN	Thinner for 2 Pack Epoxy	5 Litre	MSRR 9064, MSRR 1006, OMat 793A, DTD 5555A, Stan 80-161 HCP 355
<b>NML Range</b>			
NML21	Inspection Fluid	1 Litre	CSS 251, OMat 641, MSRR 9015
NML52	Primer for Attrition Coating	1 Kg	MSRR 9072, OMat 7/82
NML46 Grey NML 46 Black	Grey Attrition Coating	1 Kg	MSRR 9012, OMat 7/78
<b>IP3 Range</b>			
IP3-6005	2 Pack Low VOC Dark Blue/Grey	5 Litre	MSRR 9064, Def Stan 80-161, Turbomeca LB568, Dowty PS5618
IP3-9000	2 Pack Low VOC Gloss Black	1 Litre	MSRR 9064, Def Stan 80-161, Turbomeca LB568, Dowty PS5618, EMS 93080, OMat 788B
IP3-CAT	Catalyst for IP3 Range	1 Litre	MSRR 9064, Def Stan 80-161, Turbomeca LB568, Dowty PS5618, OMat 161B HCP 355
IP3-Reducer	Thinner for IP3 Range	5 Litre	MSRR 9064, Def Stan 80-161, Turbomeca LB568, Dowty PS5618 HCP 355



**OMAT 102F - 1/275A**  
numbers manufactured  
by Indestructible Paint

Omat Number	Description	Product Code
Omat 102F	White Spirit	WHITESPIRIT-D40
Omat 122A	Xylene Thinners	XYLENE
Omat 135	Methyl Ethyl Ketone	MEK
Omat 149	Toluene	TOLUENE
Omat 150	Acetone	ACETONE
Omat 1/16	Butyl Glycol	BUTYL-GLYCOL
Omat 1/119	Isopropanol	IPA
Omat 1/205	Diacetone Alcohol	DIACETONEALCOHOL
Omat 1/275A	Dow 19	DOW19
Omat 1005D	Temporary Rust Preventative	IP80-217

**OMAT 264H - 2/135**  
numbers manufactured  
by Indestructible Paint

Omat Number	Description	Product Code
Omat 264H	Black Marking or Endorsing Ink	PL258 Black
Omat 2/135	Electrolite	EM-16-A

**OMAT 3/37C - 3/171**  
numbers manufactured  
by Indestructible Paint

Omat Number	Description	Product Code
Omat 3/38F	Brazing Binder	PL248
Omat 3/171	Anti Splatter Paint	PL200

**OMAT 641** manufactured  
by Indestructible Paint

Omat Number	Description	Product Code
Omat 641	Surface Inspection Fluid	NML21

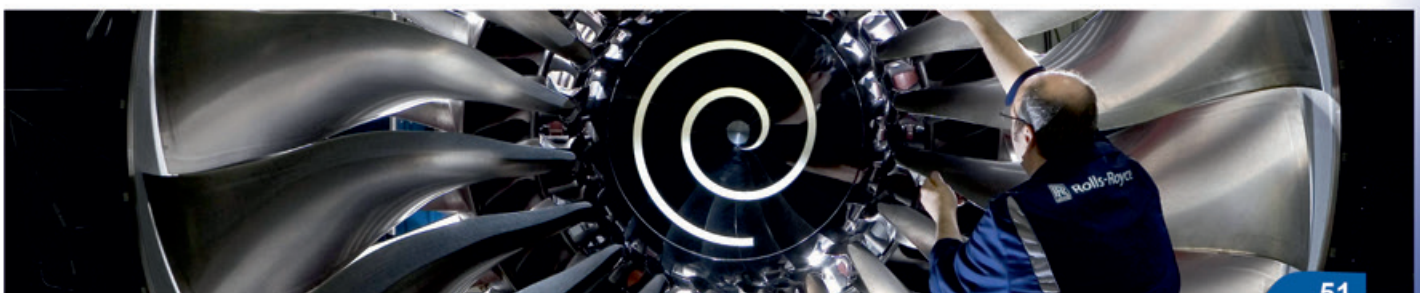
**OMAT 805 - 8/208**  
numbers manufactured  
by Indestructible Paint

Omat Number	Description	Product Code
Omat 805	Resin	SV409
Omat 806	Hardener	Crayamid-140
Omat 841	Heat Curing Sealing Compound	PL109
Omat 842	Sealing Compound	PL93
Omat 844	Air Curing High Temperature Sealing Compound	PL224
Omat 844A	Air Curing High Temperature Sealing Compound	IP1043
Omat 861	Filler (Resin)	PL130A
Omat 863	Filler (Material)	NML40
Omat 8/4	Filler Compound	PL179
Omat 8/207	Adhesive-Two Part	NML35
Omat 8/208	Adhesive-Epoxy Paste	NML76
Omat 1005D	Temporary Rust Preventative	IP80-217



**OMAT 444 - 4/85 numbers manufactured by Indestructible Paint**

OMat No	IP Code	Product Description	MSRR Equivalent	Comments
444	Bonderite LGP-M-709	MoS2 in toluene	MSRR 3004	-
493	PL157	Graphite dry film lubricant	-	-
4/18	PL93	Aluminium high temp jointing compound	MSRR 9181	-
4/36	PL181	HT dry film lubricant (Boron Nitride)	MSRR 9200	-
4/43	PL237-R1 PL237-R2	Dry film lubricant Mos	MSRR 9274	R1 grade contains Xylene/toluene R2 grade is Xylene/toluene Free: preferred
4/44C	IP9136-R1 IP9136-R3 IP9136-R4	Dry film lubricant graphite	MSRR 9276	R1 grade contains Xylene/toluene
4/70	PL470	MoS; DFL: Rapid re-lubrication system	-	-
4/71	OMAT4/71	Rapid Re-lube system: Trent 700	-	-
4/72	OMAT4/72	Rapid Re-lube system: 524GH-T 535 E-4	-	-
4/73	OMAT4/73	Rapid Re-lube system: Trent 500	-	-
4/74	OMAT4/74	Rapid Re-lube system: Trent 800	-	-
4/76	OMAT4/76	Rapid Re-lube system: Trent 900 Trent 1000	-	-
4/78	OMAT4/78	Rapid Re-lube system: BR715 V2500	-	-
4/80	IP3016	Dry film lubricant Tungsten diSulphide	MSRR 3016	-
4/83	IP9151	Thinner for OMat 4/43 (PL237 ONLY)	MSRR 9274	-
4/85	IP9151	Thinner for OMat 4/44C (IP9136 ONLY)	MSRR 9276	-
4/88, 4/88A	Omat Re-fill Kit	Containing the cleaning pads and lubricant applicator pads	-	-

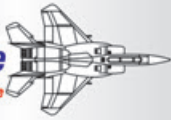




**OMAT 701A - 7/276 numbers manufactured by Indestructible Paint**

OMat No	IP Code	Product Description	MSRR Equivalent	Comments
701A	IP9155	Metal protective varnish green	MSRR 9051 *	Deleted: use 7/98
703	IP9166	Skydrol res. stoving grey	MSRR 9032 *	Deleted: use 784
705A	IP9151	Thinners	MSRR 9051 *	-
709	IP9173	AD touch up black	MSRR 9037	-
710	IP9140	Metal protective varnish clear	MSRR 9051	Deleted: use 7/22
730A	IP9165	Skydrol res. stoving primer	MSRR 9032 *	Deleted: use 7/98
744A	-	Vulcaprene	-	-
766A	IP9064-6362 IP9064-CAT	2K epoxy strontium chromate primer + catalyst	MSRR 9064	-
773	PL95	Mica filled coating	MSRR 9054	-
774A	IP9064-4853 IP9064-4854 IP9064-TDXL	2 pack etch primer + catalyst + thinner	MSRR 9064	-
781A	IP9064-TDXL	Etch primer thinners	MSRR 9064	-
782A	EPWA27	-	MSRR 9316	-
784A	IP9166	Stoving finish aircraft grey	MSRR 9032 *	Deleted: use 7/99
788A	IP9064-9000 IP9064-CAT	2 pack epoxy gloss black + catalyst	MSRR 9064	Suggested use Low VOC 788B
788B	IP3-9000 IP3-CAT	2 pack low VOC epoxy gloss black +catalyst	MSRR 9064	-
789A	IP9064-6930 IP9064-CAT	2 pack epoxy gloss aircraft grey +catalyst	MSRR 9064	-
790A	IP9064-CLEAR IP9064-CAT	2 pack epoxy clear + catalyst	MSRR 9064	-
791A	IP9064-2170 IP9064-CAT	2 pack epoxy green + catalyst	MSRR 9064	-
792A	IP9064-5380-R1 IP9064-CAT	2 pack epoxy gloss red + catalyst	MSRR 9064	-
793A	IP9064-THIN	2 pack epoxy thinners	MSRR 9064	-
795A	IP9064-0000 IP9064-CAT	2 pack epoxy gloss white + catalyst	MSRR 9064	-
799A	IP9064-3560-R1 IP9064-CAT	2 pack epoxy gloss golden yellow + catalyst	MSRR 9064	Suggested use Low VOC 799B
799B	IP3-3560 IP3-CAT	2 pack low VOC epoxy gloss golden yellow + catalyst	MSRR 9064	-
7/1A	IP9029-R3	HH resisting stoving enamel	MSRR 9029	-
7/5D	IP9188-R2	Heat resisting erosion resistant coating white	MSRR 9188	



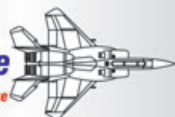


OMat No	IP Code	Product Description	MSRR Equivalent	Comments
7/5D	IP9188-R2	Heat resisting erosion resistant coating white	MSRR 9188	-
7/8	PL69	Yellow identification paint	-	-
7/22B	IP9138-R1	A/D heat resistant touch up silver	MSRR 9040	-
7/24A	IP9169	Clear touch up varnish	MSRR 9037	-
7/28B	IP9189A/B	2K epoxy intumescent paint	MSRR 1055	-
7/30A	IP9064-1100 IP9064-CAT	2 pack epoxy finish blue + catalyst	MSRR 9064	Suggested use Low VOC 7/30B
7/30B	IP3-1100 IP3-CAT	2 pack low VOC epoxy finish blue + catalyst	MRSS 9064	
7/35A	IP9170	A/D touch up aircraft grey	MSRR 9037	-
7/39A	IP9064-8000 IP9064-CAT	2 pack epoxy finish aluminium + catalyst	MSRR 9064	-
7/40	PL106	Stop off lacquer red	CSS	-
7/40C	PL81-R3	Stop off lacquer blue	CSS	-
7/45A	IP80-38	Thinners to Def Stan 80-38	N/A	-
7/46B	IP9183-R1	Ipcote sacrificial coating	MSRR 9140	-
7/47	PL177	Corrosion resistant touch up	MSRR 9141	-
7/63	Butyl Acetate	Butyl Acetate	N/A	-
7/75	PL134-R2	Water based ceramic coating	MSRR 9176	-
7/77	NML58	Wear away coating (2 pack)	N/A	Overhaul Only
7/78	NML46	Wear away coating	MSRR 9012	-
7/82	NML52	primer	MSRR 9072	-
7/84	PL168-R1	Water based HT marking paint yellow	MSRR 9041	-
7/95A	IP9286 range	Ipslip PTFE coating various colours	MSRR 9286	-
7/96	Solvent 91	Thinner for MSRR 9286 paints	MSRR 9286	Use 7/96A
7/96A	S030	Thinner for MSRR 9286 paints	MSRR 9142	-
7/98A	700-155-003	Rockhard stoving chromate epoxy primer	MSRR 9226	-
7/99A	985-000-693	Rockhard stoving epoxy grey	MSRR 9226	-
7/102	MEK	Methyl Ethyl Ketone	N/A	-
7/110A	PL149	Heat resisting marking paint white	MSRR 9041	-
7/110B	PL150-R1	Heat resisting marking paint green	MSRR 9041	-
7/110C	PL152-R1	Heat resisting marking paint black	MSRR 9041	-



OMat No	IP Code	Product Description	MSRR Equivalent	Comments
7/110D	PL153	Heat resisting marking paint grey	MSRR 9041	-
7/110E	PL155-R1	Heat resisting marking paint orange	MSRR 9041	-
7/110F	PL151- R1	Heat resisting marking paint blue	MSRR 9041	-
7/110G	PL167-R1	Heat resisting marking paint red	MSRR 9041	-
7/118A	IP6-6320 IP6-CAT	2 pack low VOC PU finish grey	MSRR 1006	-
7/120A	IP brushwash	N/A	-	-
7/124	66	Primer for water based marking paints	MSRR 9041	-
7/126B	IP9253-R2	Aluminium HH resistant paint	MSRR 9253	-
7/129A	IP1041	Ipal corrosion/oxidation resistant coating	MSRR 1041	-
7/132	Synocryl 9122 X 40	Acrylic resin	N/A	-
7/134	PL163 Clear	Clear polyimide protection paint	MSRR 9142	-
7/134A	PL163A Black	Black polyimide protection paint	MSRR 9142	-
7/136B	IP9134-R1	Aluminium polyimide	MSRR 9134	-
7/137A	S030	Thinners for polyimide paints	MSRR 9134	-
7/141A	IP6-6310 IP6-CAT	2 pack low VOC PU paint grey + catalyst	MSRR 1006 (DTD 5580)	-
7/143A	IP6-Thin (665-550-025)	Thinners for MSRR1006 paints	MSRR 1006	-
7/144A	IP9064-8010/ IP9064-CAT	2 pack epoxy bright aluminium + catalyst	MSRR 9064	Suggested use Low VOC 7/144B
7/144B	IP3-8010/ IP3-CAT	2 pack low VOC epoxy bright Aluminium + catalyst	MSRR 9064	-
7/146	690-450-005	Rockhard varnish green tinted	MSRR 9228	Use with 7/165
7/148	PL73	Matt black HH paint	MSRR 9306	-
7/150	665-550-025	Rockhard thinners	MSRR 9226 MSRR 1006 MSRR 9228	-
7/154A	IP6-1151	2 pack low VOC PU BAC707 grey	MSRR 1006	Use catalyst 7/155A
7/155A	IP6-CAT	2 pack low VOC PU catalyst	MSRR 1006	-
7/156A	IP6-Thin (665-550-025)	Polyurethane thinners	MSRR 1006	-
7/160A	IP9064-10A03 IP9064-CAT	2 pack epoxy light grey + catalyst	MSRR 9064	-
7/160B	IP3-10A03	2 pack low VOC epoxy light grey	MSRR 9064	-





OMat No	IP Code	Product Description	MSRR Equivalent	Comments
7/161A	IP9064-CAT	2 pack epoxy catalyst	MSRR 9064	Use with 7/160A
7/161B	IP3-CAT	2 pack low VOC epoxy catalyst	MSRR 9064	Use with 7/160B
7/162	750-450-004	Rockhard 2 pack epoxy varnish clear	DTD900/4492	Use with 7/163
7/163	656-450-002	Rockhard 2 pack epoxy catalyst	DTD900/4492	Use with 7/162
7/165	660-450-007	Rockhard anti-cissing agent	N/A	Use with 7/146 As necessary
7/167A	IP9356	Ipthin low film thickness Sacrificial aluminium coating	MSRR 9356	-
7/168B	IP9184/Khaki/R1	Ipseal Sealcoat Khaki	MSRR 9140	-
7/168G	IP9184-Green	Ipseal Sealcoat Green	MSRR 9140	-
7/169A	PL270	Khaki touch up	MSRR 9394	-
7/169B	PL150-R1	Green touch up	MSRR 9394	-
7/171A	IP9064-9003 IP9064-CAT	2 pack epoxy matt black	MSRR 9064	-
7/172B	IP6-0000 IP6-CAT	2 pack low VOC PU finish gloss white + catalyst	MSRR 1006	-
7/174A	615-155-001	Rockhard stoving epoxy matt black	MSRR 9226	-
7/181A	PL37	Anti-nitriding stop off	CSS60	-
7/183	IP9151	Thinner	MSRR 9029	-
7/184	S030	Thinner for polyimides	MSRR9134	-
7/186	IP9064-6933 IP9064-CAT-M	2 pack epoxy matt finish aircraft Grey + matt catalyst	MSRR 9064	-
7/196	IP9310 IP9151	Chromate primer heat resistant For magnesium + thinner	MSRR 9310	-
7/213	IP6-0000 IP6-CAT	2 pack low VOC PU finish + catalyst -	MSRR 1006	-
7/214	IP6-CLEAR IP6-CAT	2 pack low VOC PU clear varnish + catalyst	MSRR 1006	-
7/215	IP6-9000 IP6-CAT	2 pack low VOC PU finish gloss black + catalyst	MSRR 1006	-
7/216	IP6-6270 IP6-CAT	2 pack low VOC PU finish light grey + catalyst	MSRR 1006	-
7/217	IP6-6930 IP6-CAT	2 pack low VOC PU finish aircraft grey + catalyst	MSRR 1006	-



OMat No	IP Code	Product Description	MSRR Equivalent	Comments
7/218	IP6-1100 IP6-CAT	2 pack low VOC PU finish blue +catalyst	MSRR 1006	-
7/219	IP6-5380 IP6-CAT	2 pack low VOC PU finish red + catalyst	MSRR 1006	-
7/220	IP6-3560 IP6-CAT	2 pack low VOC PU finish golden yellow + catalyst	MSRR 1006	-
7/221	IP6-8010 IP6-CAT	2 pack low VOC PU finish bright aluminium + catalyst	MSRR 1006	-
7/223	985-111-900	Rockhard stoving epoxy gloss black	MSRR 9226	-
7/224	615-155-001	Rockhard stoving epoxy matt black	MSRR 9226	-
7/225	985-000-699	Rockhard stoving epoxy gloss white	MSRR 9226	-
7/226	IP3016	Dry film lubricant	MSRR 3016	Deleted: see 4/80
7/230A	LR2414	Inspection marking lacquer	MSRR 1102	-
7/235	IP9064-CAT-M	Catalyst for 2 pack epoxy matt finishes	MSRR 9064	-
7/236	IP9064-6500 IP9064-CAT	2 pack epoxy chrome free anti-corrosive primer + catalyst	MSRR 9064	-
7/237	IP9064-5555 IP9064-CAT	2 pack epoxy chromate primer dark green + catalyst	MSRR 9064	-
7/238	IP9064-6970 IP9064-CAT	2 pack epoxy gloss light admiralty grey + catalyst	MSRR 9064	-
7/239	IP9064-9000 IP9064-CAT	2 pack epoxy gloss black + catalyst	MSRR 9064	-
7/241	IP9064-9226 IP9064-CAT	2 pack epoxy touch up to MSRR 9226 primer	MSRR 9064	Colour matched to Stoved MSRR9226 primer
7/259	S17	thinners	MSRR 9037	-
7/260	PL163	High vise brushing grade	MSRR 9142	-
7/261A	IP9183-R1 + IP9444	Dense pack sacrificial coating system basecoat + sealcoat	MSRR 9444	-
7/262	IP9444	Smoothseal sealcoat	MSRR 3010	-
7/265	IP9064-1987	2 pack epoxy "anodised Aluminium" finish base comp	MSRR 9064	-
7/266	IP985-547	Rockhard epoxy stoving clear varnish	-	-
7/269	IP-FP-8000	2 pack epoxy fire retardant silver topcoat	MSRR 9064	-
7/275	IP1061	Cadmium free marking paint	MSRR 1061	-
7/276	PL111-R1	Heat resistant marking paint yellow	MSRR 9187	-





## ACC-Hentzen Aerospace Coatings & Corresponding Specifications

Company	Specification Number	ACC - Hentzen Product (Meets Specification)	Product Description
Airbus	04-04-013	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	04-04-013	PG-6-Series	Hi-Solids Polyurethane Topcoat-Gloss
	04-04-013	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	04-04-013	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
ASTM	962-81, Ty II, Class A	AX-30	Aluminum Paste
Boeing	BMS 10-72, Ty V	EP-1-Y1	Conventional Epoxy Primer
	BMS 10-72, Ty IX	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	BMS 10-72, Ty IX	PG-6-C19	Edge Sealer, Fast Cure
	BMS 10-72, Ty IX	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	BMS 10-72, Ty IX	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	BMS 10-72, Ty IX	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
	BMS 10-72, Ty IX	PG-99-Series	Buffable Hi-Solids Polyurethane Topcoat- Gloss
	BMS 10-79, Ty II, Class B, Grade A	EP-1-Y1	Conventional Epoxy Primer
	BMS 10-79, Ty II, Class B, Grade A	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	BMS 10-79, Ty II, Class B, Grade A	EP-4-CM1	Conventional Aluminized Epoxy Primer
	BMS 10-79, Ty II, Class B, Grade A	EP-5-CM1	Hi-Solids Aluminized Epoxy Primer (Wing Coating) VOC Compliant
	BMS 10-11	EP-3-GN1	Conventional Corrosion Resistant Epoxy Primer
	BMS 10-11, Ty II, Class A, Grade B	EG-1-Series	Conventional Epoxy Topcoat- Gloss
	BMS 10-11, Ty II, Class A, Grade D	EG-2-Series	Hi-Solids Epoxy Topcoat- Gloss, VOC Compliant
	BMS 10-21, Ty III	EP-6-BK1	Conductive Epoxy Primer
	BMS 10-20, Ty II, Class A, Grade A	FT-10-Y1	Epoxy Fuel Tank Primer
	BMS 10-103	SP-11	Polyurethane Primer Surfacer
	BMS 10-103	SP-40	Flexible Polyurethane Primer Surfacer
	BMS 10-103	SP-60	Flexible Polyurethane Primer Surfacer

## ACC-Hentzen Aerospace Coatings & Corresponding Specifications

Company	Specification Number	ACC - Hentzen Product (Meets Specification)	Product Description
Boeing	BMS 10-60, Ty II, Class B, Grade D	PG-6-C19	Edge Sealer, Fast Cure
	BMS 10-60, Ty II, Class B, Grade D	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	BMS 10-60, Ty II, Class B, Grade D	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	BMS 10-60, Ty II, Class B, Grade D	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
	BMS 10-60, Ty II, Class B, Grade D	PG-99-Series	Buffable Hi-Solids Polyurethane Topcoat- Gloss
	BMS 10-86, Ty III, Grade D	TG-1-Series	Hi-Solids PTFE Abrasion Resistant Polyurethane Topcoat- Gloss
	BMS 10-86, Ty I, Grade D	TS-1-Series	Hi-Solids PTFE Abrasion Resistant Polyurethane Topcoat- Semi-gloss
	BMS 10-86, Ty I, Grade D	TS-5-Series	Abrasion Resistant Polyurethane Topcoat- Semi-gloss
	BMS 10-83, Ty I	WF-3-Series	Waterbase Interior Topcoat- Flat
	BMS 10-83, Ty VI	WS-3-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
	BMS 10-83, Ty VI	WS-9-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
Boeing-Long Beach	DPM 6597 (DMS 2104)	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	DPM 6596 (DMS 2112)	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	DPM 6596 (DMS 2112)	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	DPM 6596 (DMS 2112)	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
	DPM 5066	TS-1-Series	Hi-Solids PTFE Abrasion Resistant Polyurethane Topcoat- Semi-gloss
	DPM 5766-1	SP-11	Polyurethane Primer Surfacer
	DPM 5948	WS-3-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
	DPM 5949	WF-3-Series	Waterborne Polyurethane Interior Topcoat- Flat
	DMS 1786 Comp A	EP-3-GN1	Conventional Corrosion Resistant Epoxy Primer
	DMS 2112	PG-6-C19	Edge Sealer, Fast Cure
	DMS 2112	PG-99-Series	Buffable Hi-Solids Polyurethane Topcoat- Gloss
	DMS 2433 Comp C	EG-2-Series	Hi-Solids Epoxy Topcoat- Gloss VOC Compliant
	Boeing- Mesa	HMS 15-1100, Ty II, Class 2	EG-2-Series
Bombardier	BAMS 565-008, Ty II, Class A, Grade B	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	BAMS 565-009, Ty II, Class A, Grade B	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	BAMS 565-009, Ty II, Class A, Grade B	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	BAMS 565-009, Ty II, Class A, Grade B	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
	BAMS 565-009, Ty II, Class A, Grade B	PG-99-Series	Buffable Hi-Solids Polyurethane Topcoat- Gloss
	BAMS 565-015, Class A, Grade B	SP-40	Flexible Polyurethane Primer Surfacer
	BAMS 565-015, Class A, Grade B	SP-60	Flexible Polyurethane Primer Surfacer
	BAMS 565-005, Ty II	TS-1-Series	Hi-Solids PTFE Abrasion Resistant Polyurethane Topcoat- Semi-gloss
	BAMS 565-005, Ty III	TS-5-Series	Hi-Solids PTFE Abrasion Resistant Polyurethane Topcoat- Semi-gloss
de Havilland	DHMS C4.18	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	DHMS C4.04	PG-99-Series	Buffable Hi-Solids Polyurethane Topcoat- Gloss
Embraer	MEP 10-068	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant



## ACC-Hentzen Aerospace Coatings & Corresponding Specifications

Company	Specification Number	ACC - Hentzen Product (Meets Specification)	Product Description
Embraer	MEP 10-069	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	MEP 10-069	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	MEP 10-069	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
F.A.R	25.853	FPE-2	Epoxy Filler Putty
	25.853	FPW-1	Waterbase Filler Putty
	25.853	SPW-1	Waterbase Primer Surfacer
	25.853	PS-1-Series	Conventional Polyurethane Interior Topcoat- Semi-gloss
	25.853	WS-3-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
	25.853	WS-9-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
Fokker	JAA RLD.JA.001	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	JAA RLD.JA.001	WS-3-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
Lockheed Martin	EPGS 37.341	WS-3-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
	STM 37-600	AX-28	Dye, Biocidal, Color Additive Concentrate
	STM 37-510, Ty III, Class II	EP-6-BK1	Conductive Epoxy Primer
	STM 32-307, Ty II, Class I, Group C, P & S	SR-40	Pre-wipe Solvent Cleaner
	TT-P-320D, Ty II, Class A	AX-30	Aluminum Paste/ Conductive Additive
Military	MIL-PRF-23377, Ty I, Class C	EP-10-Y1	Conventional Epoxy Primer
	MIL-PRF-27725, Ty II, Class A	FT-9-Y1	Polyurethane Fuel Tank Coating
	MIL-PRF-48699	SR-21	Solvent Reducer for Gun Coating GC-Series
	MIL-PRF-22750	EG-1-Series	Conventional Epoxy Topcoat- Gloss
	MIL-PRF-85285, Ty I & II	PF-11-Series	Hi-Solids Polyurethane Topcoat- Flat
	AA 59166 (previously MIL-PRF-5044C)	PN-14-Series	Hi-Solids Polyurethane Non-Skid Walkway Coating
Northrop Grumman	GP110AAE10	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	GP110AAE	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
OSU	65/65	FPW-1	Waterbase Filler Putty
	65/65	SPW-1	Waterbase Primer Surfacer
	65/65	PS-1-Series	Conventional Polyurethane Interior Topcoat- Semi-gloss
	65/65	WS-3-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
	65/65	WS-9-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss
SAAB	51-33-00	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	51-33-00	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	51-33-00	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	51-33-00	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
SAE	AMS 3095	EP-2-Y1	Hi-Solids Epoxy Primer- VOC Compliant
	AMS 3095	PG-6-Series	Hi-Solids Polyurethane Topcoat- Gloss
	AMS 3095	PF-6-Series	Hi-Solids Polyurethane Topcoat- Flat
	AMS 3095	PS-6-Series	Hi-Solids Polyurethane Topcoat- Semi-gloss
	AMS 3146, Ty I & II, Class 2	WS-9-Series	Waterborne Polyurethane Interior Topcoat- Semi-gloss

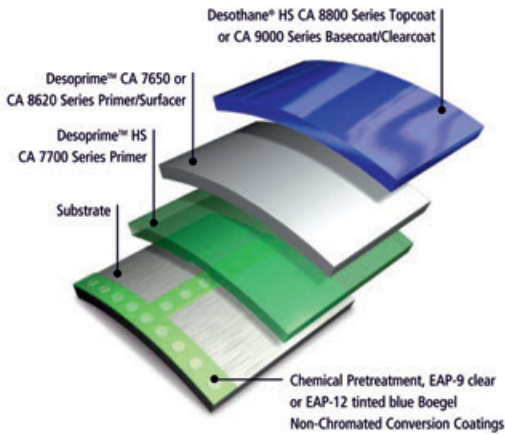


Commercial and General Aviation Coatings

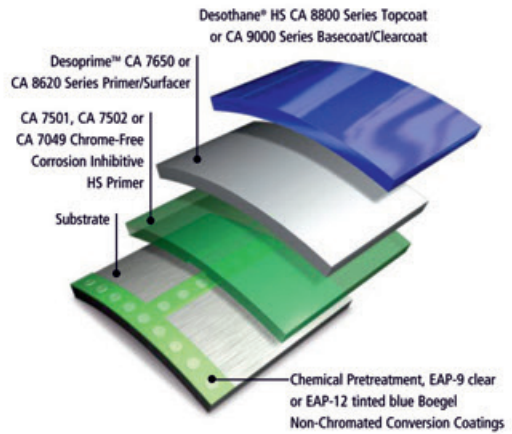
# Desothane® Coatings Systems

## General Aviation Coating System

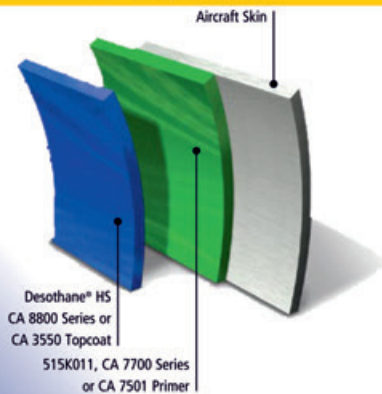
### Business Jet Paint System



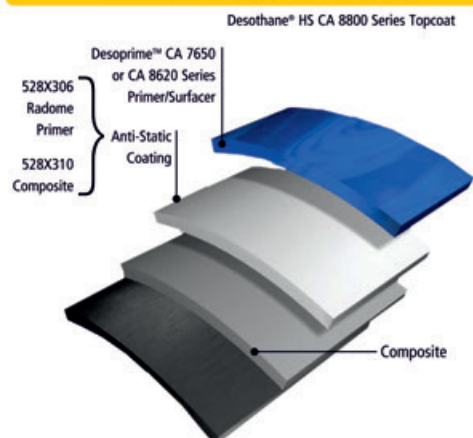
### Chrome-Free System



### Interior System



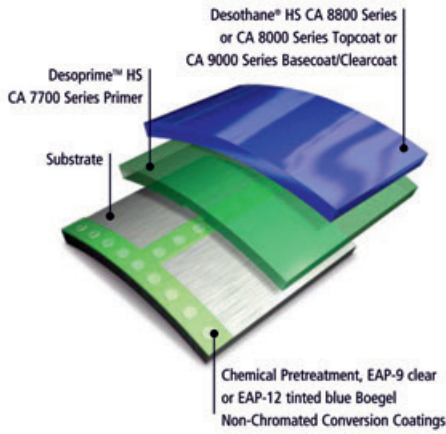
### Composite System



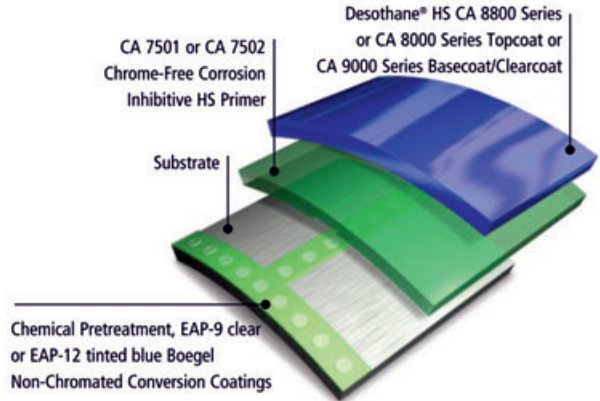


## General Aviation Coating System

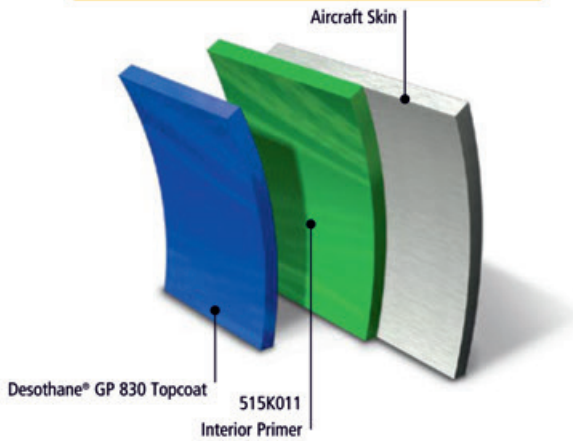
### Standard Commercial Paint System



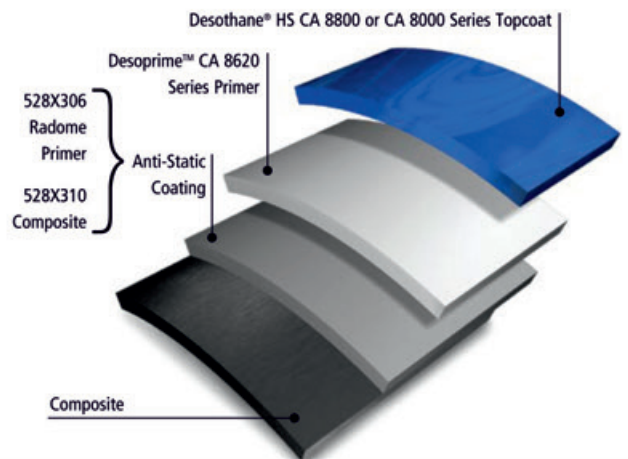
### Chrome-Free System



### Interior System

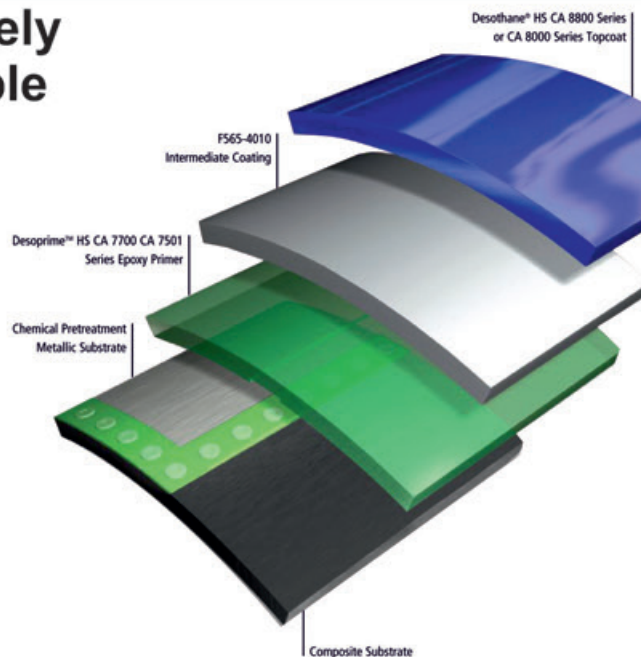


### Composite System



## Desothane® Coatings Systems

### Selectively Strippable System





## Interior Epoxy Primers General Purpose

Table 1

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
515K011 / 910-012	1:1	Conventional	BAMS 565-001 BMS 10-11 Type I MEP 10-059	Fluid resistant, BAC 452. Green.
513K009 / 910-012	1:1	Conventional	BAMS 565-001 BMS 10-11 Type I	Fluid resistant, BAC 377. Yellow.

## Exterior Epoxy Primers Urethane Compatible

Table 2

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
CA 7700 series / CA 7700B B & BE version	1:1	Low VOC	BMS 10-72 Type VIII	Superior adhesion, flexibility and fluid resistance, 6-hour pot life, fast dry. Yellow. Available with CA 7700BE activator for longer wet edge, electrostatic spray.
513X377 / 910X482 / 020X364	4:1:3	Conventional	BAMS 565-008 BMS 10-79 Type II	Amine cured, strippable, electrostatic exterior primer. Yellow.
515X349 / 910X533	1:1	Conventional	BMS 10-79 Type III DHMS C4.18 DMS 2144 Composition A STMK 189	Amine cured, superior adhesion, non-strippable. Green.
513X384 / 910X456	1:1	Conventional	BMS 10-79 Type II STMK 189	Amine cured, strippable, exterior primer. Yellow.
512X310 / 910X533	1:1	Conventional	BMS 10-103 Type I DHMS C4.01 MCS 9010 Type I	Chrome-free epoxy designed for use on composite surfaces. Light gray.
CA 7501A / CA 7501B	1:1	Low VOC	BMS 10-118 PRC-DeSoto Standard	

## DeSoto® Adhesive Primer and Adhesion Promoter

Table 4

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
CA 200 Tie-Coat	3:1:2	Conventional	BMS 10-127	Adhesion promoter. Improves bonding characteristics.

## Desothane® HS Commercial Polyurethane Topcoats

Table 7

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
CA 8000 series / CA 8000B / CA 8000C thinners	2:1:1	Low VOC	<ul style="list-style-type: none"> <li>• ABP 4-2127</li> <li>• AIMS 04-04-013</li> <li>• BAMS 565-009</li> <li>• BMS 10-60 Type II</li> <li>• BMS 10-72 Type VIII</li> <li>• BMS 10-125 Type III</li> <li>• BMS 10-126 Type I</li> <li>• D6-1816</li> <li>• DHMS C4.04</li> <li>• DMS 2143</li> <li>• DPM 6456</li> <li>• GAMPS 3209</li> </ul>	High solids and flat topcoats, highly durable and flexible, available in variable dry times and colors (including metallics).
CA 8010 series / CA 8010D	2:1	Low VOC	BMS 10-60 Type II	High solids, flat, highly durable and flexible, available in variable dry times and colors.
CA 8020 series / CA 8020D	2:1	Low VOC	BMS 10-60 Type II	High solids, semi-gloss, highly durable and flexible, available in variable dry times and colors.
Desothane® GP 830 general purpose polyurethane topcoats	2:1:1	Low VOC	BMS 10-60 Type I	High solids polyurethane, available in a variety of colors. BMS 10-60 Type I products are suitable replacements for BMS 10-11 Type II products.

## Desothane® Clear Topcoats

Table 8

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
CA 8800B900 / CA 8800Z / CA 8800F* thinners	2:1:1	Low VOC	BAMS 565-009 BMS 10-72 Type VIII BMS 10-125 Type III MEP 10-069	Buffable clear polyurethane designed for use over any CA 8000 or CA 8800 series topcoats. Easy to apply.
CA 8000B900A / CA 8000B	2:1	Low VOC	BAMS 565-009 BMS 10-60 Type II BMS 10-72 Type VIII BMS 10-125 Type III	Clear polyurethane designed for use over CA 8000 series.



## Desothane® Anti-Chafe Topcoats

**Table 9**

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
CA 8100 / CA 8100B / CA 8100C	2:1:1	Low VOC	AIMS 04-04-007 BAC 5710 Type 27 BAMS 565-005 BMS 10-86 Type I - White and gray BMS 10-86 Type III - any color GMS 4201 PAI 3782 MEP 10-071	PTFE filled polyurethane, highly durable and abrasion CA 8100C BAC 5710 Type 27 resistant. Available in a variety of colors and dry times. BAMS 565-005 Available in two part kit for touch-up applications.
CA 8101 / CA 8100B / CA 8100C	2:1:1	Low VOC	BMS 10-86 Type II	PTFE filled polyurethane, highly durable and abrasion resistant. Available in BAC 700 (BAC 7067) white and BAC 707 gray. Available in two part kit for touch-up applications.



## DeSoto® Conductive Epoxy Coatings

**Table 12**

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
528X306 / 910X464	1:1	Conventional	BAMS 565-012 BMS 10-21 Type II	Used to control static charge bleed-off on radomes, antennas, fiberglass, and other insulative parts. Coatings surface resistivity ranges from 1 to 100 megohms per square. Jet black.
528X310 / 910X464	1:1	Conventional	BAMS 565-012 BMS 10-21 Type III	Used to obtain and control surface conductivity on composite surfaces. Coatings surface resistivity ranges from 0 to 100,000 ohms per square. Jet black.

## DeSoto® Integral Fuel Tank Coatings

**Table 14**

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
CA 7501	1:1	Low VOC	BMS 10-123	Chrome-free epoxy primer for composite fuel tanks.
823-707 / 910-702 / 020-707	4:1:4	Conventional	AMS-C-27725 BAC 5793 BAMS 565-010 BMS 10-101 DHMS C4.06 Type I DMS 1850	Excellent adhesion to titanium and stainless steel. Yellow.
823-011 / 910-099 / 020-037	4:1:4	Conventional	BAC 5793 BMS 10-101	Excellent adhesion to titanium and stainless steel. Translucent yellow.

## Desothane® HS Walkway Topcoats

**Table 16**

Product Number	Mix Ratio	VOC	Specifications	Comments / Benefits
CA 8022B7022 /CA 8020D Pumice: 920K058	2:1	Low VOC	BAC 5705 Type I MEP 10-085	Used on over-wing emergency exits. Can be applied by spray, roller or brush. Semi-gloss white.
CA 8012B701 / CA 8010D Pumice: 920K058	2:1	Low VOC	BAC 5705 Type I MEP 10-085	Used on over-wing emergency exits. Can be applied by spray, roller or brush. Flat black.

## DeSoto® Thinners, Flow Control and Solvent Reducers

**Table 17**

Product Number	VOC	Specifications	Comments / Benefits
CA 8000C CA 8000C1 CA 8000C2 CA 8000C3 CA 8000C4 CA 8000C5	Conventional	BAMS 565-009 BMS 10-60 Type II BMS 10-72 Type VIII BMS 10-125 Type III BMS 10-126 Type I	D6-1816 DHMS C4.04 DPM 6456 MEP 10-069
			Thinner for Desothane® HS CA 8000 series topcoats. Designed for improved appearance and flow. Available in variable dry times.

# AEROSPACE COATINGS CROSS REFERENCE



## Polyurethane Abrasion Resistant Coating

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR ARC	AIMS 04-04-007 Issue 2	Polyurethane abrasion resistant coating
	23T3-10 23T3-105	BMS 10-86, Ty I, Gr D	Anti-chafe coating, VOC compliant
PPG	CA 8100 CA 8100B CA 8100C	AIMS 04-04-007 BMS 10-86 Type I BMS 10-86 Type III	PTFE filled polyurethane, highly durable and abrasion resistant.
Hentzen Aerospace	TG-1-Series	BMS 10-86, Ty III, Grade D	Hi-Solids PTFE Abrasion Resistant Polyurethane Topcoat- Gloss
	TS-1-Series	BMS 10-86, Ty I, Grade D	Hi-Solids PTFE Abrasion Resistant Polyurethane Topcoat- Semi-gloss
	TS-5-Series	BMS 10-86, Ty I, Grade D	Abrasion Resistant Polyurethane Topcoat- Semi-gloss
Indestructible paints	IP 9286	MSRR 9286 ; PCS 2550 ( IP9286-1166 )	Low Friction Coating

## Composite primer

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR BARRIER PRIMER 37045	AIMS 04-04-002 Issue 2	Chromate free composite primer
PPG	512X310 / 910X533	BMS 10-103 Type I MCS 9010 Type I DHMS C4.01	Chrome-free epoxy designed for use on composite surfaces. Light gray.
	CA 7049	AIMS 04-04-031 AIMS 04-04-032	Chrome-free epoxy primer for composite and aluminum surfaces
Hentzen Aerospace	EP-17-G1	BAMS 565-008	Non-Strippable Aircraft Composite Primer
Indestructible paints	Primer-Surfacier IP3-00015	Defence standard 80-216	Typically used as the first coat primer on composites for many applications. White, grey and black.

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AEROFLEX FINISH G 12 E 25	AIMS 04-04-017 Issue 2	Wing Coating
PPG	Winguard (FE107 / T187)	Airbus TN A.007.10129	Single pack, aluminum filled, highly flexible polyurethane. Aluminum.
Hentzen Aerospace	EP-5-CM1	BMS 10-79, Ty II, Class B, Grade A	Hi-Solids Aluminized Epoxy Primer (Wing Coating) VOC Compliant
Indestructible paints	N/A	-	-



# AEROSPACE COATINGS CROSS REFERENCE



Chrome Free Polyurethane Primer			
	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR CF PRIMER 37047	AMS 3095A	Chromate Free Polyurethane Primer For Exterior
	Aerodur Primer S 15/90	AIMS 04-04-012 Issue 2 Type A	Chromate Free Polyurethane Primer
PPG	PAC33CF (4360/3031)	AIMS 04-04-012	Chrome-free Polyurethane Primer Used Over P99, High Flexibility. Fast Dry. Beige.
Hentzen Aerospace	SP-11 SP-60 (Flexible)	BMS 10-103 DPM 5766-1	Polyurethane Surfacers / Primer
Indestructible paints	N/A	-	-

Conventional Polyurethane Topcoat			
	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR FINISH C 21/100 UVR	AIMS 04-04-012 Issue 2 Type A	Polyurethane Topcoat, Gloss
PPG	PU66	Airbus TN A.007.10112 Airbus TN A.007.10113 Airbus TN A.007.10118 WL 5.7051	Polyurethane Topcoat
Hentzen Aerospace	PG-6 Series	BMS 10-72 AIMS 04-04-013 MIL-PRF-85285, TYPE I, Class H	High Solid Polyurethane Topcoat
Indestructible paints	IP6 Series	BS2X 34 type B; MSRR 1006, RPS661/50, RPS617.. HAL(India) RWDC for use on Advanced Light Helicopter Dunlop PRO525 (ML-TR 100031) Supersedes DTD 5580. Similar to Mil – C – 85285	Low VOC 2 Pack Polyurethane Coating

# AEROSPACE COATINGS CROSS REFERENCE



## Clearcoat

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR CLEARCOAT UVR	AIMS 04-04-012 Issue 2 Type A AIMS 04-04-023 Issue 3 Variant A	UV Resistant Polyurethane Clearcoat
PPG	Desothane Evolution CA 8905HP high durability buffable clearcoat	PRC-DeSoto Standard	Ideal For Clearcoating Over Clearcoat CA 9500 Series, CA 8800 Series, And CA 8000 Series Topcoats
	CA 8000B900A / CA 8000B	BAMS 565-009 BMS 10-60 Type II BMS 10-72 Type VIII BMS 10-125 Type III DHMS C4.04 Type 6	Clear Polyurethane Designed For Use Over CA 8000 Series.
Hentzen Aerospace	PG-6/PH	BMS 10-60, Ty I, Class B, Grade D	High Solids Clear Gloss Polyurethane Topcoat
Indestructible paints	IP6-CLEAR	BS2X 34 type B; MSRR 1006, RPS661/50, RPS617.. HAL(India) RWDC for use on Advanced Light Helicopter Dunlop PRO525 (ML-TR 100031) Supersedes DTD 5580. Similar to Mil – C – 85285	Clear Gloss Varnish

## Polyurethane Aluminum Topcoat

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR FINISH SGL ALUMINIUM	Z-12.383 IFC 30-117-05 Edition 2 PCS-2500 Issue 3	Polyurethane Topcoat
PPG	PU66	Airbus TN A.007.10112 Airbus TN A.007.10113 Airbus TN A.007.10118 WL 5.7051	Polyurethane Topcoat
Hentzen Aerospace	PG-6 Series	BMS 10-72 AIMS 04-04-013 MIL-PRF-85285, TYPE I, Class H	High Solid Polyurethane Topcoat
Indestructible paints	IP6-8010 IP6-CAT	Omat 7/221 MSRR 1006	2 Pack Low VOC PU Finish Bright Aluminium + Catalyst

## Walkway Coating

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR NON SLIP	Airbus TN A.007.10050-34	3-component Polyurethane Walkway Coating
PPG	CA 8022B7022 /CA 8020D	BAC 5705 Type I MEP 10-085	HS Walkway Compound
Hentzen Aerospace	PN-14 Series	AA59166 (MIL-PRF-5044C)	High Solids Polyurethane Non-skid Walkway Coating
Indestructible paints	N/A	-	-



# AEROSPACE COATINGS CROSS REFERENCE



Conventional Epoxy Primer			
	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR PRIMER S 15/60	SMI 70 067	3-component Isocyanate Cured Epoxy Primer For Interior And Exterior Use.
PPG	F580-2080 / F275-160	AIMS 04-04-032 AIMS 04-04-001	Conventional Formulated For Use On Exterior And Interior Of Aircrafts And Fuel Tanks. Excellent Fluid Resistance And Adhesion Characteristics (used With Sss System). Yellow.
Hentzen Aerospace	EP-10-Y1	MIL-P-23377G, Type I, Class C	Conventional Epoxy Primer Yellow
	EP-1-Y1	BMS 10-72R, Type V BMS 10-79, Type II, Class B, Grade A	Conventional Epoxy Primer Yellow
Indestructible paints	IP 9064	MIL-PRF-23377 MIL 22750 RPS 661/43 RPS 667/5 RPS 667/761	Two Pack Chromate Epoxy Primer

Polyurethane primer			
	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AERODUR PRIMER S 15/90	AIMS 04-04-012 Issue 2 Type A	Polyurethane Primer
PPG	PAC33CF (4360/3031)	AIMS 04-04-012 Airbus A.007.10113	Chrome-free Polyurethane Primer Used Over P99, High Flexibility, Fast Dry. Beige.
Hentzen Aerospace	SP-11,SP-40(flexible), SP-60(flexible)	BMS 10-103	Conventional Polyurethane Surfacer Primer
Indestructible paints	N/A	-	-

High Solid Polyurethane Topcoat			
	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	646-58 Series	MIL-PRF-85285, TY I	High Solids Polyurethane Topcoat,
PPG	Desothane HS CA 8100	MIL-PRF-85285	High Solids Polyurethane Topcoat
Hentzen Aerospace	PG-6 Series	MIL-PRF-85285, TY I, TY II	High Solid Polyurethane Topcoat
Indestructible paints	IP6 Series	BS2X 34 type B; MSRR 1006, RPS661/50, RPS617.. HAL(India) RWDC for use on Advanced Light Helicopter Dunlop PRO525 (ML-TR 100031) Supersedes DTD 5580. Similar to Mil – C – 85285	Low VOC 2 Pack Polyurethane Coating

# AEROSPACE COATINGS CROSS REFERENCE



## High Solid Epoxy Primer

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	AVIOX PRIMER 37098	AIMS 04-04-013 Issue 3 AIMS 04-04-014 Issue 2 AIMS 04-04-026 Issue 1	High Solid Epoxy Primer
	10P20-44	BMS 10-79, TY II and III, CI B, Gr D BMS 10-72, TY IX	High Solids Epoxy Primer, Fluid-resistant
PPG	CA 7700 series / CA 7700B	BMS 10-72 Type VIII	High Solid Epoxy Primer Yellow.
Hentzen Aerospace	EP-2-Y1	Airbus 04-04-013 BMS 10-79, Ty II, Class B, Grade A BMS 10-72, Ty IX AMS 3095	Hi-solids Epoxy Primer- VOC Compliant
Indestructible paints	N/A	-	-

## Epoxy Primer for Exterior

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	EPOXY PRIMER 37035 A	AIMS 04-04-001 Issue 3 AIMS 04-04-038 issue 1 BS2X 33 Type A and B	Epoxy Primer For Exterior
PPG	PR205 / ACT 205 (CA 7003/CA 7003B)	AIMS 04-04-001 AIMS 04-04-003 AIMS 04-04-004 AVN 7-003 BSX33B MSRR9064	Formulated For Use On Exterior And Interior Of Aircrafts And Fuel Tanks. Excellent Fluid Resistance And Adhesion Characteristics. Yellow.
Hentzen Aerospace	EP-3-GN1	BMS 10-11, Ty I Class A, Grade A	Conventional Fluid Resistant Epoxy Primer
	EP-10-Y1	MIL-PRF-23377, Ty I, Class C	Conventional Epoxy Primer
Indestructible paints	IP9064-6500 IP9064-CAT	MSRR 9064 OMAT 7/236	2 Pack Epoxy Chrome Free Anti-corrosive Primer + Catalyst

## Fuel Tank Primer

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	454-4-1/CA-109	BMS 10-20, TY II, CI A, Gr A	Fuel Tank Primer
PPG	PR205 / ACT205	AIMS 04-04-001 AIMS 04-04-003 AIMS 04-04-004	Formulated For Interior Use And Fuel Tanks. Excellent Fluid Resistance And Adhesion. Yellow.
Hentzen Aerospace	FT-10-Y1	BMS 10-20, Ty II, Class A, Grade A	Epoxy Fuel Tank Prime
	FT-9-Y1	MIL-PRF-27725, Ty II, Class A	Polyurethane Fuel Tank Coating
Indestructible paints	N/A	-	-



# AEROSPACE COATINGS CROSS REFERENCE



High Heat Resistant Coating			
PRODUCT	SPECIFICATION	DESCRIPTION	
AKZO	HIGH HEAT RESISTANT PAINT S 21/8	Z-12.504 / TT-P-28 STD 175233 Issue 4	High heat resistant paint S 21/8 is a single pack aluminium pigmented silicone coating. Heat resistance up to 700°C (1300°F).
PPG	PL101C3	MSRR 9029	Single pack, matte, aluminum filled enamel for aero-engine applications, suitable for steel, aluminum and titanium. Resistant up to 932°F(500°C).
Hentzen Aerospace	EP-20-HT1	BAC 5710, Type 53	High Temperature Coating
Indestructible paints	IP9029-R3	MSRR 9029 OMat 7/1D	HH Aluminium Stoving heat resistance from 500°C to 650°C

Solvent Cleaner			
PRODUCT	SPECIFICATION	DESCRIPTION	
AKZO	SOLVENT CLEANING C 28/15	ABP 4-2125 Issue 4 Cleaner ABP 5-1351 Issue 2 BAEP 3545 Issue 2B BAEP 7700 Issue 1 STD 176714 Issue 1	Cleaning Solvent For Metal Substrates
PPG	Desoclean™ 110 (020K019)	PRC Desoto Standard	Non-aggressive solvent cleaner. Excellent for metallic and composite components.
	Desoclean™ 45 (020X413)	BAC 5322 DPM 8226 STM0752	Aggressive solvent cleaner. Highly effective on aircraft and aerospace metallic sub-assemblies, parts and spray equipment.
Hentzen Aerospace	SR-40 SR-28	STM 32-307, Ty II, Class I, Group C, P & S	Pre-wipe Solvent Cleaner
Indestructible paints	2000-5-0098	Def Stan 03-2	Solvent Cleaner
	IPC.S-01	-	Solvent Cleaner
	White Spirit	MIL-PRF-680 Type I, Type II	Solvent Cleaner

# AEROSPACE COATINGS CROSS REFERENCE



## Wash Primer

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	METAFLEX FCR PRIMER	SMI 70 014 AIMS 04-04-012 Issue 2 Type A	Filiform Corrosion Resistant Wash Primer
PPG	P99	Airbus TN A.007.10113	Etch Primer, Highly Flexible, Yellow – Golden Color.
Hentzen Aerospace	EP-2-Y1	BAMS 565 -008 , Type I ,Class A, Grade B AIMS 04-04-13 BMS 10-72 AMS 3095	High Solid Yellow Epoxy Primer
Indestructible paints	IP9064-4853 (Base) IP9064-4854 (Catalyst) IP9064-TDXL (Thin)	Def Stan 80-15 DTD 5555A BSX 32 etc.	Pretreatment Etch Primer

## High Solid Epoxy Primer

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	10P20-13	MIL-PRF-23377, TY I, CI C	VOC Compliant Epoxy Primer
PPG	Deso prime HS CA 7233	MIL-PRF-23377, TY I, CI C	VOC Compliant Epoxy Primer
Hentzen Aerospace	EP-2-Y1	MIL-P-23377G, Type I, Class C	Hi-solids Epoxy Primer
Indestructible paints	IP 9064	MIL-PRF-23377 MIL 22750 RPS 661/43 RPS 667/5 RPS 667/761	Two Pack Chromate Epoxy Primer

## Anti-Static Epoxy Primer

	PRODUCT	SPECIFICATION	DESCRIPTION
AKZO	10P2-3 Pyroflex 7D713	BMS 10-21 Type III AIMS 04.04.005	Anti-static Conductive Flat Black Epoxy Coating
PPG	528X310	BMS 10-21 Type III	Anti Static Epoxy Primer
Hentzen Aerospace	EP-6-BK1	BMS 10-21, Type III	Anti-static Epoxy Primer
Indestructible paints	IP5632	PS5006/5632	Conductive Matt Black



## PROCEDURE OF PENETRANT INSPECTION



**Pre-cleaning**



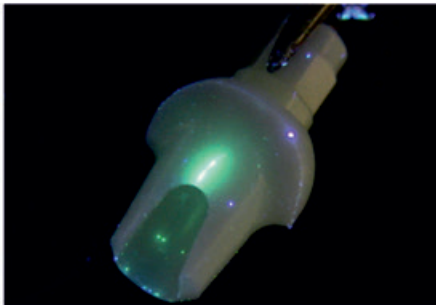
**Penetrant application**



**Intermediary Cleaning**



**Developer application,  
surface examination,  
documentation**



Defects indication resulted from fluorescent penetrant system application



Defects indication resulted from contrast penetrant system application

### ● APPLICATION FIELDS:

- Aircraft industry
- Automobile production
- Engineering
- Ship building
- Nuclear industry
- Metallurgy
- Electrical engineering
- Medicine
- Boiler building
- Foundry
- Welding

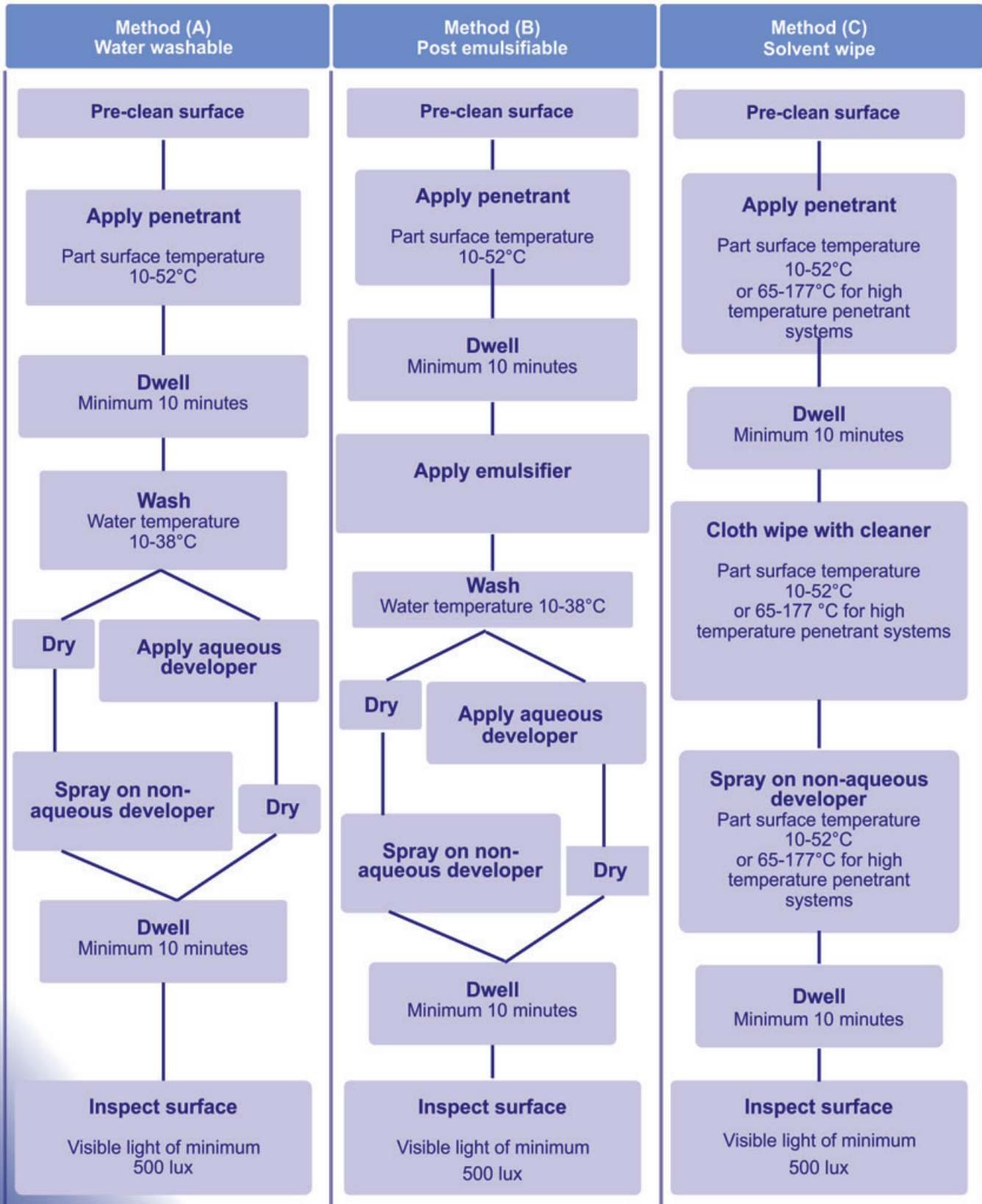
### ● WORK WITH MATERIALS:

- Alloyed and plain steels
- Nonferrous metals
- Plating
- Products of powder metallurgy
- Weld joints
- Steatite
- Plastics
- Ceramics
- Other synthetic materials

### ● DEFECTS INDICATION:

- Cold cracks
- Heat cracks
- Grinding cracks
- Pores
- Pores clusters
- Sponge structure
- Corrosion cracks

## CONTRAST PENETRANT TESTING





## CONTRAST (RED-WHITE) PENETRANT TESTING

### NORD-TEST PENETRANT SYSTEM

- A red penetrant only system
- The **NORD-TEST** penetrant system is widely applied for parts testing in engineering and automobile industries, ship and boiler building, welding, etc. in a temperature range from  $-5^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$
- Complies with a variety of international standards
  - MIL-I-25135
  - AMS 2644
- Economical and reliable



Product name	Sensitivity level	Removal method	Product information
NORD-TEST Cleaner U87	NA	NA	Environmentally safe alcohol based cleaner. Fast evaporating without residues. <b>Delivery form:</b> Spray can 500 ml    Art.No.121.300.101 Can 1 L                    Art.No.121.300.102 Can 10 L                 Art.No.121.300.103 Cask 200 L              Art.No.121.300.104
NORD-TEST Kontrastrot U88 Penetrant	Class II (high sensitivity) Acc. to DIN EN ISO 3452-2	«A» - water washable «C» - solvent wipe removal	Deep red penetrant with good wetting properties. Good washable. Practically odorfree. <b>Delivery form:</b> Spray can 500 ml    Art.No.121.300.201 Can 1 L                    Art.No.121.300.202 Can 10 L                 Art.No.121.300.203 Cask 200 L              Art.No.121.300.204
NORD-TEST Rot 3000 Penetrant	Class II (high sensitivity) Acc. to DIN EN ISO 3452-2	«A» - water washable «C» - solvent wipe removal	Red fluorescent penetrant without azo dye. Very good washable. Practically odor-free. Fluorescent under UV irradiation for brilliant indications. <b>Delivery form:</b> Spray can 500 ml    Art.No.121.300.301 Can 1 L                    Art.No.121.300.302 Can 10 L                 Art.No.121.300.303 Cask 200 L              Art.No.121.300.304
<b>New!</b> NORD-TEST Penetrant Foam Red & fluorescent	Class II (high sensitivity) Acc. to DIN EN ISO 3452-2	«A» - water washable «C» - solvent wipe removal	Red fluorescent penetrant foam without azo dye. Water based. Simple usage, exact and neat application, very good removability. Reliable test results. <b>Delivery form:</b> Spray can 300 ml    Art.No.121.300.310
NORD-TEST Food Penetrant	Class II (high sensitivity) Acc. to DIN EN ISO 3452-2	«C»- solvent wipe removal	Blue penetrant in food quality – safe for testing in food preparation and storage areas, high sensitive. Good wetting properties. Very good contrast. <b>Delivery form:</b> Can 1 L                    Art.No. 124.000.102
NORD-TEST Developer U89	NA	NA	Fine-grained white powder suspension on alcohol base. Flavoring free. Short drying time. Being applied as an even thin layer. <b>Delivery form:</b> Spray can 500 ml    Art.No.121.300.701 Can 1 L                    Art.No.121.300.702 Can 10 L                 Art.No.121.300.703 Cask 200 L              Art.No.121.300.704

## STANDARD-CHEK PENETRANT SYSTEM



- A red penetrant only system
- The **Standard-Chek** penetrant system is a widely used system for parts testing in engineering and automobile industries, ship and boiler building, welding, etc.
- Class II (high sensitivity)
- Rod 2003 can be used as red as well as fluorescent dye
  - MIL-I-25135
  - AMS 2644

Product name	Sensitivity level	Removal method	Product information
Standard-Chek Cleaner No.1	NA	NA	FCCH-free alcohol based cleaner ,fast evaporating without residues. <b>Delivery form:</b> Spray can 500 ml    Art.No.121.200.101 Can 1 L                    Art.No.121.200.102 Can 10 L                    Art.No.121.200.103 Cask 200 L                 Art.No.121.200.104
Standard-Chek Kontrastrot No. 2 Penetrant	Class II (high sensitivity) Acc. to DIN EN ISO 3452-2	«A» - water washable «C» - solvent wipe removal	Red penetrant with a wide application range used for the inspections in welding, petrochemical, pharmaceutical industries and general metal working. <b>Delivery form:</b> Spray can 500 ml    Art.No.121.200.201 Can 1 L                    Art.No.121.200.202 Can 10 L                    Art.No.121.200.203 Cask 200 L                 Art.No.121.200.204
Standard-Chek Rot 2003 Penetrant	Class II (high sensitivity) Acc. to DIN EN ISO 3452-2	«A» - water washable «C» - solvent wipe removal	Red fluorescent penetrant without azo dye. Practically odor-free. Very good washable. Fluorescent under UV irradiation for brilliant indications. <b>Delivery form:</b> Spray can 500 ml    Art.No.121.200.301    Art.No.121.200.303 Can 1 L                    Art.No.121.200.302    Art.No.121.200.304 Can 10 L Cask 200 L
Standard-Chek Developer No. 3	NA	NA	Alcohol-based, fine-grained white powder suspension being applied as a homogeneous thin layer. Short drying time <b>Delivery form:</b> Spray can 500 ml    Can 10 L                 Art.No.121.200.501    Art.No.121.200.503 Can 1 L                    Cask 200 L             Art.No.121.200.502    Art.No.121.200.504

## MET-L-CHEK PENETRANT SYSTEMS

- Largely for fluorescent testing
- All QPL listed
  - MIL-I-25135
  - AMS 2644
- **Widely used within the aerospace industry**



**MET-L-CHEK** contrast penetrant systems are listed on the Qualified Products List for AMS-2644 and used in the nuclear and aerospace industries, welding, general metal working etc. in a temperature range from -5°C to +50°C. For testing at higher temperature (from +65° to + 175° ) the specially developed VP-302 penetrant is used in combination with D-702 developer and R-502 cleaner.

**MET-L-CHEK** penetrant systems were tested and approved in accordance with DIN EN ISO 3452-2, EN 571, KWU, MIL-I-25135-E/QPL-25135 and meet the requirements of Lloyd's Register of Shipping, Bureau Veritas, Bureau Central Hollandais, Germanischer Lloyd, AMS 2647, ASME Boiler and Pressure Vessel, ASTM E-165, ASTM-E1417. The low content of sulfur and halogens was ascertained and confirmed according to ASTM E 165-02 and ASTM D 516-02, as well as to requirements of KWU and DIN EN ISO 3452.



## FLUORESCENT PENETRANT TESTING

### MET-L-CHEK PENETRANT SYSTEMS

**MET-L-CHEK** offers a complete line of post emulsifiable and water washable fluorescent penetrants designed to meet the most critical inspection application /Products are available in increments of sensitivity from level ½ to level 4.

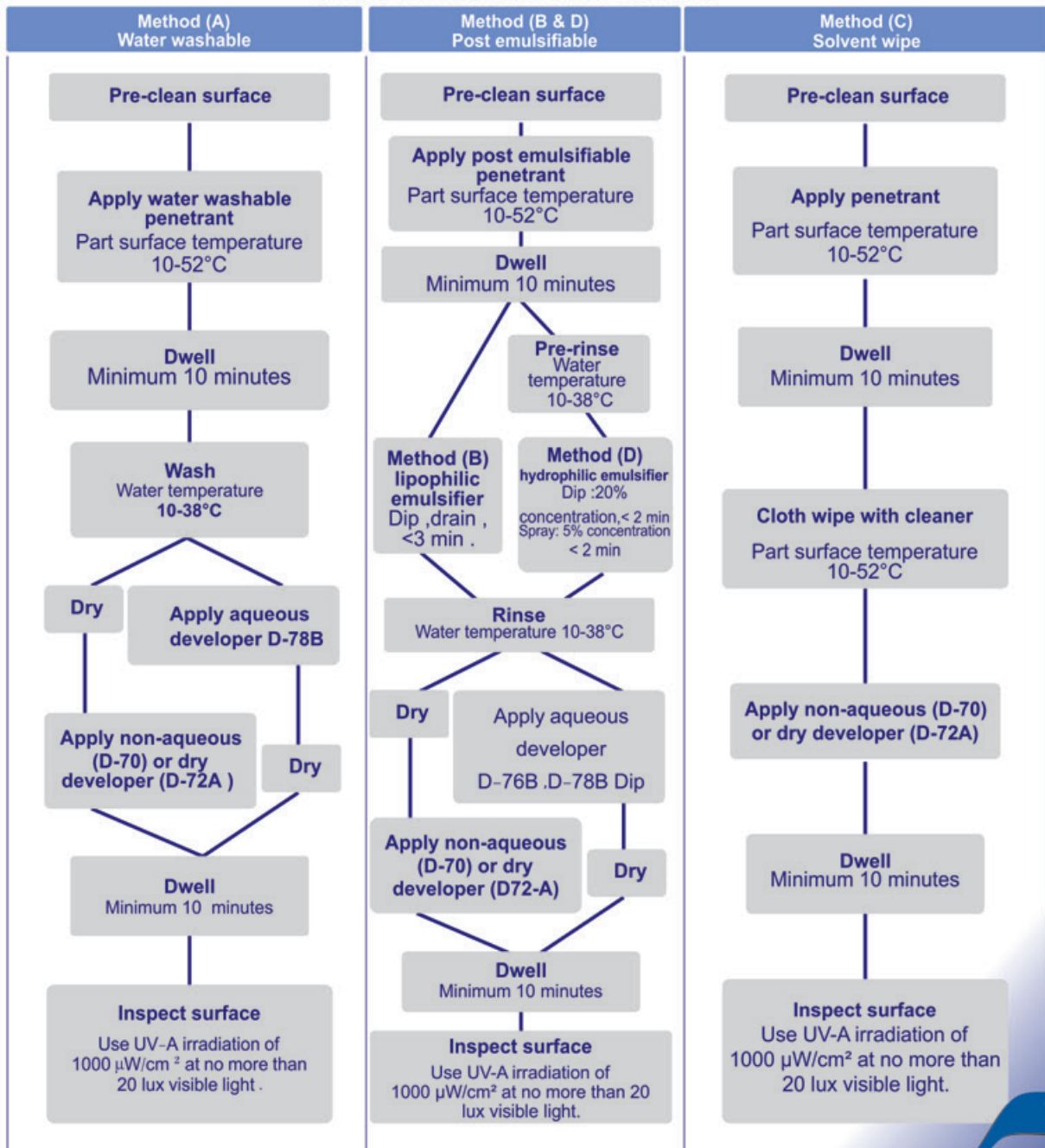


All the penetrants are listed on the Qualified Products List for MIL-I-25135E and AMS-2644. They meet the requirements of ASME Boiler and Pressure Vessel Code and ASTM E-1417 for penetrant inspection materials.

All meet the OSHA open tank use requirement of having flash points over 200°F (93°C). Most of them are approved by Pratt & Whitney, General Electric, AEG, Detroit Diesel Allison and other prime aerospace contractors.

**MET-L-CHEK** materials are low in Sulfur, Chlorine and other Halogens, making them safe for use on titanium and high nickel alloys in nuclear applications.

### FLUORESCENT PENETRANT TESTING



## *Met-L-Chek*

**Fluorescent ( Typ I ) and contrast ( Typ II ) penetrant inspection media**  
according to AMS 2644 & ASTM E1417

**REMOVAL METHODS:** A – Water washable  
B – Post emulsifiable, lipophilic emulsifier  
C – Solvent wipe removal  
D – Post emulsifiable ,hydrophilic emulsifier  
(Dip: 17-20% concentration, spray: < 5 % concentration)

**SENSITIVITY LEVEL:** 1/2 – very low 1– low; 2– medium; 3– high; 4-very high

**DEVELOPER FORMS:** a – Dry developer ;use with all fluorescent penetrants (Type I) .Methods A .B .C & D .  
b – Water soluble type ;use with fluorescent penetrants (Type I) ,Methods B .C & D .  
c – Water suspendible developer ;use with all penetrants .Methods A .B .C & D .  
d – Nonaqueous developer ; use with Type I penetrants .Methods A .B .C & D .  
e – Nonaqueous developer ; use with Type II penetrants .Methods A .B .C & D .  
f – Special application developer.

**SOLVENT CLASS:** 1 – Halogenated solvent remover, use with all penetrants, Method C.  
2 – Nonhalogenated solvent remover, use with all penetrants, Method C.  
3 – Special application material used with special application penetrants, Method C.

Name	Type	Method class/form	Sensitivity level	AMS -2644 QPL4	General description
FP-900	I	A & C	1/2	YES	Very low sensitivity, general metal working.
FP-901	I	A & C	1	YES	Low sensitivity, general metal working.
FBP-911	I	A & C	1	YES	Low sensitivity, oil and solvent free.
FP-921	I	A & C	1	YES	Low sensitivity, aerospace applications.
FP-902	I	A & C	2	YES	Medium sensitivity, general metal working.
FBP-912	I	A & C	2	YES	Medium sensitivity, oil and solvent free.
FP-922	I	A & C	2	YES	Medium sensitivity, aerospace applications.
FP-903	I	A & C	3	YES	High sensitivity, all applications.
FBP-913	I	A & C	3	YES	High sensitivity, oil and solvent free.
FB-923	I	A & C	3	YES	High sensitivity, aerospace applications.
FBP-914	I	A & C	4	YES	Ultra High sensitivity, oil & solvent free.
FP-93A(M)	I	B ,C & D	2	YES	Medium sensitivity, all applications.
FP-95A(M)	I	B ,C & D	3	YES	High sensitivity, all applications.
FP-97A(M)	I	B ,C & D	4	YES	Ultra high sensitivity, all applications.
VP-30	II	A & C	NA	YES	Welding, nuclear and general metal working.
VBP-300	II	A & C	NA	YES	Oil and solvent free, general metal working.
VP-31A	II	B & C	NA	YES	Welding, nuclear and general metal working.
VP302	II	C	NA	NA	Special high temperature material
E-50	II	B	NA	YES	Lipophilic emulsifier for VP-31A
E-57	I	B	NA	YES	Lipophilic emulsifier for FP-93/95/97A(M)
E-58D	I	D	NA	YES	Hydrophilic remover for FP-93/95/97A(M)
E-59	I & II	C, class 2	NA	YES	Solvent remover for all penetrants .
E-59A	I & II	C, class 2	NA	YES	Solvent cleaner / remover for all penetrants
R-502	II	C, class 3	NA	NA	Special high temperature remover for VP-302
R-503	I & II	C, class 2	NA	YES	Petroleum free cleaner / remover
R-504	I & II	C, class 2	NA	YES	Fast evaporating solvent remover, phenol free
D-70	I & II	Forms d & e	NA	YES	Nonaqueous developer, all penetrants.
D-72A	I	Form a	NA	YES	Dry powder developer ,all Type I penetrants
D-76B	I	Form b	NA	YES	Aqueous soluble developer
D-78B	I & II	Form c	NA	YES	Aqueous suspendible developer
D-702	II	Form f	NA	NA	Special high temperature developer for VP-302

Fluorescent ( Typ I ) and contrast ( Typ II ) penetrant inspection media



## STATIONARY FACILITIES FOR PENETRANT TESTING

Stationary devices for fluorescent penetrant testing correspond to the specifications of main world standards: MIL-I 25135E, MIL STD 6866, AMS 2644, EN 571-1. All components meet the European requirements for Health, Safety and Ergonomics.

The inspection systems are basically made of stainless steel and equipped with first class means for functional control. The devices are designed and manufactured according to customer's performance specifications with regard for specific inspection tasks and test objects.

### Main stages of processing:

1. Pre-clean ;
2. Wash;
3. Dry to  $\approx 1000^{\circ}\text{C}$ ;
4. Cool to  $T = 40^{\circ}$ ;
5. Dip in a tank with penetrant
6. Water wash
7. Dip in a tank with emulsifier
8. Post water wash;
9. Dry at  $\approx 60^{\circ}\text{C}$ ;
10. Electrostatic application of powder developer;
11. Surface inspection under UV irradiation.

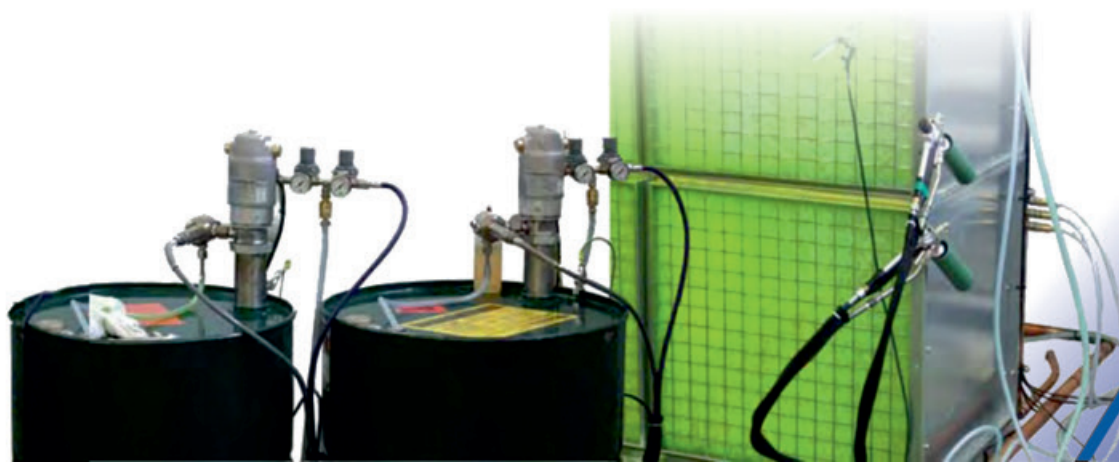


## ELECTROSTATIC DEVICES

Electrostatic liquid application is a high-efficient coating method, offering decisive advantages over conventional application techniques in many areas of industry including penetrant testing. Due to the electrostatic charge the penetrant (developer) particles repel each other to produce an extremely fine atomization. The uniform spray jet generates a very homogeneous material application with an even coating, resulting in a particularly high quality finish.

The wrap-around effect results from a force field between the negatively charged penetrant (developer) particles and the grounded work piece. Both the front and rear of the work piece can thus be coated at the same time – with enormous savings in material and time.

To achieve maximum wrap-around and optimum application efficiency the electrostatic systems operate at a very high level of performance.





## TEST PANELS

### Test body JIS Z 2343



The test body is used to determine the sensitivity of penetrant systems and for comparing two penetrants, one of which can be taken for standard. It consists of two test panels which are bronze planes 100x35x2 mm, plated with NiCr-layer. Several crosscut cracks are made in the nickel-chrome-plating, the depth of cracks fits the width of the NiCr-plating. The bodies are designed in 4 types – with plating width of 10, 20, 30 & 50  $\mu\text{m}$ . The quotient of cracks' width to their depth equals 1:20. Each test-panel is provided with a certificate according to EN 10204, type 3.1 B, which verifies its conformity to EN ISO 3452-3. The test panels with cracks' depth of 10, 20, 30  $\mu\text{m}$  are used for testing of fluorescent penetrant systems sensitivity. The sensitivity of contrast penetrant systems is determined by panels with cracks depth of 30 and 50  $\mu\text{m}$ .

### Reference Block No.1 (EN ISO 3452-3)



The Type 1 Reference Block for testing sensitivity of fluorescent and visible penetrant systems consists of 4 nickel-chrome plated panels with 10, 20, 30 and 50  $\mu\text{m}$  thickness of plating respectively. The panels with cracks' depth of 10, 20 and 30  $\mu\text{m}$  are used for determination of the sensitivity of fluorescent penetrant systems. The sensitivity of visible (contrast) penetrant systems is determined by using the 30 and 50  $\mu\text{m}$  plated panels.

The Type 1 panels are rectangular in shape with typical dimensions of 35 x 100 x 2 mm. Transverse cracks are made in each panel by stretching the panels in the longitudinal direction. The width to depth ratio of each crack should be approximately 1:20. A declaration stating conformance to EN ISO 3452-3 and in line with EN 10204, Type 3.1 B shall accompany each test block.

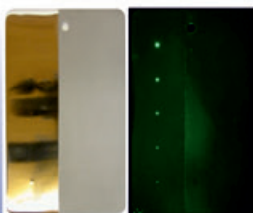
### Reference Test Panel No.2 (EN ISO 3452-3)



The Reference Test Panel No. 2 is an austenitic plate, which is chrome-plated and provided with four fields (25 x 35 mm) of different surface roughness ( $R_a = 2,5 \mu\text{m}$ ,  $R_a = 5 \mu\text{m}$ ,  $R_a = 10 \mu\text{m}$  and  $R_a = 15 \mu\text{m}$ ) on the one half and 5 star-shaped crack patterns of different sizes on the other half. The rough fields are used for control of the intermediate washing-off. The star-shaped cracks in the chrome plating are generated by ball stamping from the rear side.

The indication on the reference test panel gives no suggestion of the indication on the part under test.

### Test Panel PSM-5



The PSM-5 test panel is used for testing the penetrant process in whole while human or automatic (semiautomatic) processing according to Pratt & Whitney Aircraft TAM 1460 40. The PSM-5 is a rectangular panel, measuring 10x15 cm, width 2,3 mm, made of stainless steel.

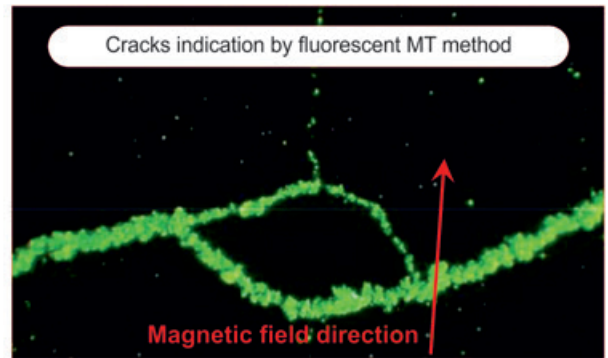
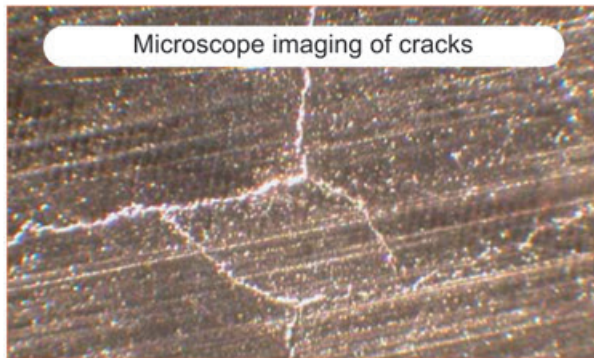
The chromium-plated strip on the left side contains 5 star-shaped crack patterns which are arranged according to their sizes.

The crack pattern differs from one panel to another. The right half is sandblasted and used to evaluate the penetrant removability. The panel should not to be used for comparison of different penetrant systems.



The magnetic particle testing method (MT) is one of the most sensitive, reliable and productive NDT-methods for surface inspection of products from ferromagnetic materials. The method is based on the attraction of ferromagnetic particles by force of leakage flux which appears above surface defects like cracks, laps, lacks of fusion, pores after an adequate magnetization.

MT can be used for indication of open surface defects and under certain conditions for detection of near-surface defects. A higher probability of detection is given, when the direction of a defect is perpendicular to the direction of the applied magnetic field. The smaller is the angle between the defect and magnetic field lines, the weaker is the indication.



#### APPLICATION FIELDS:

- Metallurgy
- Engineering
- Aircraft industry
- Automobile production
- Ship building
- Constructional engineering
- Pipelining
- Power machine building
- Chemical engineering
- Transport (air, rail, motor transport)

#### DEFECTS INDICATION:

- Cracks
- Hair cracks
- Tears
- Silver spots
- Lacks of fusion
- Pores

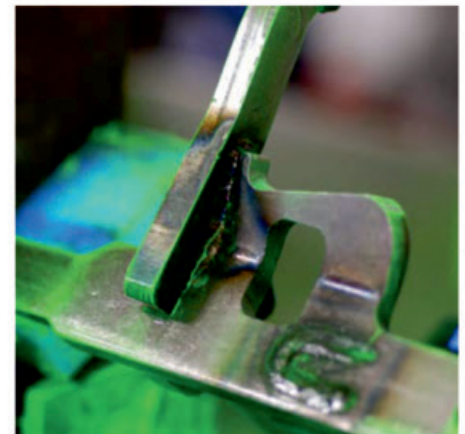
The magnetic particle testing is a separate processing procedure which consists of following parts: 1. Preparation of the test objects' surfaces for testing; 2. Magnetization of the object; 3. Application of magnetic particle suspension (powder) onto the test object; 4. Inspection; 5. Demagnetization.

### FLUORESCENT INSPECTION MEDIA FOR MAGNETIC PARTICLE TESTING

For the magnetic particle testing the HELLING Company offers a complete line of fluorescent inspection media in form of dry powders, liquid and dry concentrates and ready-to-use oil-based suspensions. The HELLING **Dry Magnetic Powders** excel in their high fluorescence coefficient, defined grain size distribution as well as purity and assure the indication even of the finest defects.

The **liquid and dry concentrates** for preparing of water-based magnetic particle suspensions contain all necessary wetting, antifoam and antirust agents. These concentrates are used even for the inspection of corrosion-sensitive parts. The usage of concentrates also helps to cut down the shipping and storing costs considerably.

The **ready-to-use suspensions** are an ideal inspection material for testing on construction sites and mounting pads or for sampling inspection. The suspensions are based on colorless, odor-free, non-irritant, low-viscosity oils. The oils have no intrinsic fluorescence, that is why the very contrasting and brilliant defect indication is achieved. Furthermore the HELLING delivery program also includes **aerosol systems** (V.O.C. free) for quick, handy and efficient magnetic particle testing, even in the field conditions. The inspection media from HELLING meet the requirements of ASME-Code, Sect. V, ASTM E 709 and EN ISO 9934.

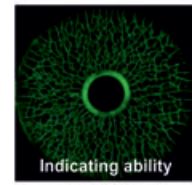
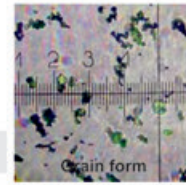


Crack indication resulted from application of the water-based suspension prepared by use of Super Magna LY 1500 dry concentrate.



## Super Magna LY 2500

Fluorescence coefficient (Cd/W)	Average grain size (µm)	Recommended concentration (g/l)	Sedimentation (1 g/l) / 100ml
2,8	4	0,4-1	0,25



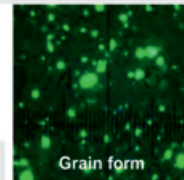
### Delivery form:

### Note:

Art.No.	Delivery form	Container	Note
Art.No.135.001.040	Pure magnetic powder	1 kg container	1 kg sufficient for 2500 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.103.301	Liquid water-based concentrate 1:40	1 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.103.304	Liquid water-based concentrate 1:40	5 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.103.115	Dry concentrate 10g:1L	1 kg container	Contains wetting, antifoam (silicone free) and antirust agents.
Art.No.135.103.216	Ready-to-use oil-based suspension	1 L can	
Art.No.135.103.217	Ready-to-use oil-based suspension	10 L can	

## Super Magna LY 2300

Fluorescence coefficient (Cd/W)	Average grain size (µm)	Recommended concentration (g/l)	Sedimentation (1 g/l) / 100ml
3,4	6	0,4-1	0,25



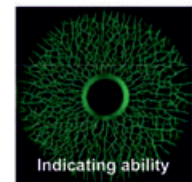
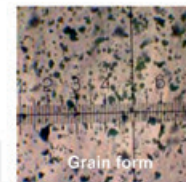
### Delivery form:

### Note:

Art.No.	Delivery form	Container	Note
Art.No.135.001.150	Pure magnetic powder	1 kg container	1 kg sufficient for 2500 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.103.401	Liquid water-based concentrate 1:40	1 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.102.216	Ready-to-use oil-based suspension	1 L can	
Art.No.135.102.217	Ready-to-use oil-based suspension	10 L can	

## Super Magna LY 1500

Fluorescence coefficient (Cd/W)	Average grain size (µm)	Recommended concentration (g/l)	Sedimentation (1 g/l) / 100ml
5,2	12,5	0,6-1,5	0,2



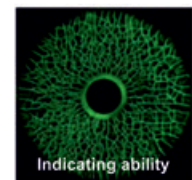
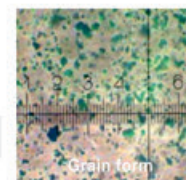
### Delivery form:

### Note:

Art.No.	Delivery form	Container	Note
Art.No.135.001.010	Pure magnetic powder	1 kg container	1 kg sufficient for 1500 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.103.501	Liquid water-based concentrate 1:40	1 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.103.504	Liquid water-based concentrate 1:40	5 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.101.118	Dry concentrate 10g:1L	1 kg container	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.101.216	Ready-to-use oil-based suspension	1 L can	
Art.No.135.101.217	Ready-to-use oil-based suspension	10 L can	

## Super Magna CGY 4000

Fluorescence coefficient (Cd/W)	Average grain size (µm)	Recommended concentration (g/l)	Sedimentation (1 g/l) / 100ml
11,3	14	0,5-1,5	0,2



### Delivery form:

### Note:

Art.No.	Delivery form	Container	Note
Art.No.135.001.180	Pure magnetic powder	1 kg container	1 kg sufficient for 1500 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.104.114	Liquid water-based concentrate 1:50	1 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.104.118	Dry concentrate 10g:1L	1 kg container	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.104.216	Ready-to-use oil-based suspension	1 L can	
Art.No.135.104.217	Ready-to-use oil-based suspension	10 L can	



## COLOR INSPECTION MEDIA FOR MAGNETIC PARTICLE TESTING

Along with the fluorescent inspection media the HELLING delivery program includes diverse color consumables like dry powders, concentrates and ready-to-use oil-based suspensions.

Dry Magnetic Powders from HELLING are notable for their bright colors, defined grain size distribution and purity. So they serve for a reliable indication even on dark or polished surfaces.

The dry concentrates for preparing of water-based magnetic particle suspensions contain all necessary wetting, antifoam and antirustagents. These concentrates are used even for the inspection of corrosion-sensitive parts. The usage of concentrates also helps to cut down the shipping and storing costs considerably.

The ready-to-use suspensions are an ideal inspection material for testing on construction sites and mounting pads or for sampling inspection. The suspensions are based on colorless, odor-free, non-irritant, low-viscosity oils.

Furthermore the HELLING delivery program also includes aerosol systems (V.O.C. free) for quick, handy and efficient magnetic particle testing, even in the field conditions.

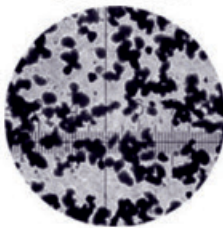


Crack indication resulted from application of the water-based suspension prepared by use of MEF 515 dry concentrate.

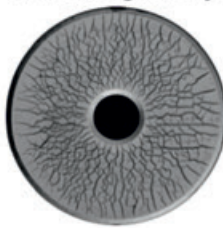
The inspection media from HELLING meet the requirements of ASME-Code, Sect. V, ASTM E 709 and EN ISO 9934.

### BW 333

Grain form



Indicating ability



Color	Average grain size (µm)	Recommended concentration (g/l)	Sedimentation (1 g/l) / 100ml
Black	4	3-5	0,1

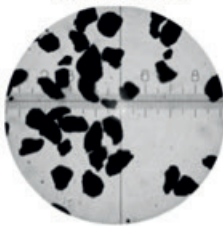
Delivery form:

Note:

Art.No.	Delivery form	Container	Note
Art.No.135.002.010	Pure magnetic powder	1 kg container	1 kg sufficient for 200-300 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.100.301	Dry concentrate 15g:1L	1,5 kg container	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.
Art.No.135.002.031	Liquid water-based concentrate 1:50	1 L can	Contains wetting ,antifoam( silicone free) and antirust agents. Halogens free.
Art.No.135.100.216	Ready-to-use oil-based suspension	1 L can	
Art.No.135.100.217	Ready-to-use oil-based suspe	10 L can	

### WD 105

Grain form



Indicating ability



Color	Average grain size (µm)	Recommended concentration (g/l)	Sedimentation (1 g/l) / 100ml
Grey-white	37	5	0,1

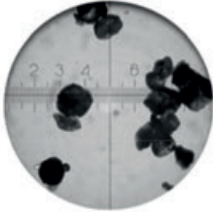
Delivery form:

Note:

Art.No.	Delivery form	Container	Note
Art.No.135.001.530	Pure magnetic powder	1 kg container	1 kg sufficient for 200 l suspension. For water based suspensions use BC 502 Additive!
	Dry concentrate 15g:1L	1,5 kg container	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.

## TGL hellorange

**Grain form**



**Indicating ability**



Color	Average grain size(µm)	Recommended concentration(g/l)	Sedimentation (1 g/l) / 100ml
Orange	47	5	0,3

Delivery form:

Note:

Art.No.135.001.511

Pure magnetic powder

1 kg container

1 kg sufficient for 200 l suspension. For water based suspensions use BC 502 Additive!

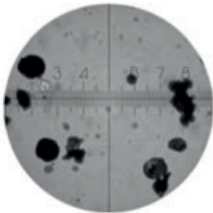
Dry concentrate 15g:1L

1,5 kg container

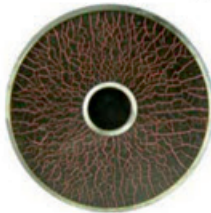
Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.

## TGL 11

**Grain form**



**Indicating ability**



Color	Average grain size(µm)	Recommended concentration(g/l)	Sedimentation (1 g/l) / 100ml
Red	35	5	0,3

Delivery form:

Note:

Art.No.135.001.510

Pure magnetic powder

1 kg container

1 kg sufficient for 200 l suspension. For water based suspensions use BC 502 Additive!

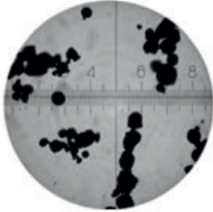
Dry concentrate 15g:1L

1,5 kg container

Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.

## WW 50

**Grain form**



**Indicating ability**



Color	Average grain size(µm)	Recommended concentration(g/l)	Sedimentation (1 g/l) / 100ml
Grey-white	30	5	0,25

Delivery form:

Note:

Art.No.135.003.030

Pure magnetic powder

1 kg container

1 kg sufficient for 200 l suspension. For water based suspensions use BC 502 Additive!

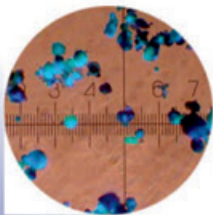
Dry concentrate 15g:1L

1,5 kg container

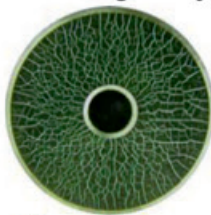
Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.

## TGL 12

**Grain form**



**Indicating ability**



Color	Average grain size(µm)	Recommended concentration(g/l)	Sedimentation (1 g/l) / 100ml
Green	35	5	0,3

Delivery form:

Note:

Art.No.135.001.520

Pure magnetic powder

1 kg container

1 kg sufficient for 200 l suspension. For water based suspensions use BC 502 Additive!

Dry concentrate 15 g:1L

1,5 kg container

Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.



## AEROSOL SYSTEMS FOR MAGNETIC PARTICLE TESTING

The consumables in spray cans are used for a quick, handy and efficient testing, also in test labs and in field conditions.

The HELLING aerosol suspensions both oil-based and water-based excel in their indicating ability and serve for detection of the finest cracks. Due to the economic consumption and ease of application they are an ideal inspection material for testing on construction sites and mounting pads or for sampling inspection.

The HELLING aerosol systems are V.O.C. free and meet the requirements of ASME-Code, Sect. V, ASTM E 709 and EN ISO 9934



Weld joint inspection on a bridge by use of BW 333 black magnetic particle suspension and NR 104 A white background paint.

### LY 2500

A fluorescent water-based magnetic particle suspension. The suspension contains all necessary wetting, antifoam and antirust agents and provides a very high sensitivity. The average grain size of magnetic particles is about 4  $\mu\text{m}$ . Contents: 400 ml.



### MEF 515

A red, fluorescent, oil-based magnetic particle suspension, which provides a contrast indication even on black and polished part surfaces, on the white background paint as well as under UV irradiation. The average grain size of magnetic particles is about 10  $\mu\text{m}$ . Contents: 500 ml.



### BW 333

A black water-based magnetic particle suspension. The suspension contains all necessary wetting, antifoam and antirust agents and provides a high sensitivity. The average grain size of magnetic particles is about 4  $\mu\text{m}$ . Contents: 400 ml.



### NR 104

A white background paint which is a white pigment suspension in a slightly volatile solvent, doesn't contain chlorinated hydrocarbons. Dries quickly (about 1 min. at 20°C) and produces a smooth, uniformly white background coating. To be applied as a thin layer with a thickness up to 30  $\mu\text{m}$ . Contents: 400 ml.



### NRF 101

A fluorescent magnetic particle suspension based on odor-free oil with a high flash point. The suspension is a good corrosion inhibitor and provides a very high sensitivity. The average grain size of magnetic particles is about 4  $\mu\text{m}$ . Contents: 400 ml.



### NR 104 /S

A white re-dyeable background paint which shouldn't be removed before further painting. No chlorinated hydrocarbons. Dries quickly (about 2 min. at 20°C) and produces a smooth, uniformly white background coating. To be applied as a thin layer with a thickness up to 30  $\mu\text{m}$ . Contents: 400 ml.



### NRS 103

A black magnetic particle suspension of high sensitivity. It is based on odor-free oil with a high flash point and is a good corrosion inhibitor. The average grain size of magnetic particles is about 4  $\mu\text{m}$ . Contents: 400 ml.



### NR 107

Remover for background paint.





## HAND MAGNETIZING DEVICES

### HAND YOKE ELECTROMAGNETS

With the HANSA series the HELLING Company presents a new generation of hand yoke electromagnets, which excel by many advantages as compared with the previous series: they are more lightweight, handy, powerful!

An important ergonomic feature of this series is the special narrow handle, which facilitates a fatigue-free working – even for small hands. The series includes the UM 8, UM 9, UM 10 and UM 15 hand yokes. The UM 8, 9 and 10 hand yokes differ in dimensions (pole spacing and length), in weight and in lifting strength.

Optionally the devices can be fitted with two-limbs flexible legs, whose lower limbs can be swung inwards and outwards by 45°. The pole spacing can be hereby increased or decreased by approximately 60 cm. Due to 45° inclination of the contact surface the legs fit optimal the geometry of the object under testing.

The UM 15 hand yoke is provided with three-limbs flexible legs in standard execution. Hereby the poles distance can be set in the range from 95 up to 250 mm.

All hand yokes of HANSA series meet – also with flexible legs by maximum pole spacing – the requirements of general guidelines and standards (EN ISO 9934-3, ASTM 709 and ASME-Code, Sect. V). Here a lifting strength of min. 45 N (4,5 kg) or a tangential field strength of min. 20 A/cm (EN ISO 9934-3) is required as operational capability proof. The HANSA hand yokes are completely sealed, being fed with main voltage of 230 Volt and possess the IP 65 protection class. They can be used (with the exception of UM 8 (60 sec./30% ED) with the maximum turn-on time of 150 sec. and maximum duty cycle of 50%. The cable can be uncoupled in order to prevent breaking of the connecting bushing.



Flexible legs 45° for UM 8, UM 9, UM 10



Art.No. 131.002.030

#### UM 8 / HANSA-42 Hand Yoke Electromagnet

Pole spacing, mm	170
Pole cross section, mm	25 x 25
Dimensions, mm	265 x163x51
Tangential field strength, A/cm	30
Lifting force, N	130
Supply voltage, V	42
Operating current, A	9
Duty cycle, %	30
Weight, kg	3,3
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request



Art.No. 131.002.020

#### UM 8 / HANSA-230 Hand Yoke Electromagnet

Pole spacing, mm	170
Pole cross section, mm	25 x 25
Dimensions, mm	265 x163x51
Tangential field strength, A/cm	30
Lifting force, N	130
Supply voltage, V	230
Operating current, A	2
Duty cycle, %	30
Weight, kg	3,3
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request





### UM 9 / HANSA -230 Hand Yoke Electromagnet

Pole spacing, mm	170
Pole cross section, mm	25 x 25
Dimensions, mm	250 x135x49
Tangential field strength, A/cm	30
Lifting force, N	130
Supply voltage, V	230
Operating current, A	2
Duty cycle, %	50
Weight, kg	2,9
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request

Art.No. 131.002.024



### UM 10 / HANSA -42 Hand Yoke Electromagnet

Pole spacing, mm	135
Pole cross section, mm	25 x 25
Dimensions, mm	210 x110x51
Tangential field strength, A/cm	30
Lifting force, N	85
Supply voltage, V	42
Operating current, A	3,3
Duty cycle, %	50
Weight, kg	2,2
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request

Art.No. 131.002.027



### UM 9 / HANSA -42 Hand Yoke Electromagnet

Pole spacing, mm	170
Pole cross section, mm	25 x 25
Dimensions, mm	265 x135x49
Tangential field strength, A/cm	32
Lifting force, N	120
Supply voltage, V	42
Operating current, A	8,5
Duty cycle, %	50
Weight, kg	2,9
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request

Art.No. 131.002.025



### UM15 / HANSA -230 Hand Yoke Electromagnet

Pole spacing, mm	95-245
Pole cross section, mm	25 x 25
Dimensions, mm	255 x173x45
Tangential field strength, A/cm	23
Lifting force, N	50
Supply voltage, V	230
Operating current, A	3
Duty cycle, %	50
Weight, kg	3,2
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request

Art.No. 131.002.028



### UM 10 / HANSA -230 Hand Yoke Electromagnet

Pole spacing, mm	135
Pole cross section, mm	25 x 25
Dimensions, mm	210 x110x51
Tangential field strength, A/cm	30
Lifting force, N	90
Supply voltage, V	230
Operating current, A	0,8
Duty cycle, %	50
Weight, kg	2,2
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request

Art.No. 131.002.026



### UM 15 / HANSA-42 Hand Yoke Electromagnet

Pole spacing, mm	95-245
Pole cross section, mm	25 x 25
Dimensions, mm	255 x173x45
Tangential field strength, A/cm	20
Lifting force, N	50
Supply voltage, V	42
Operating current, A	9
Duty cycle, %	50
Weight, kg	3,2
Cable length, m	3
Protection system	IP 65

Optional: cable up to 10 m long on request

Art.No. 131.002.029

## KMU 8/42 CROSS YOKE

The KMU 8/42 consists of two alternating current yokes disposed crosswise with pole spacing of 170 mm. They are fed by 2 equipotent alternating currents with 90° phase shift, what results in rotating magnetization vector, whose field strength is equal in all directions. This magnetization technique enables the detection of discontinuities of every orientation. In practice it means: simultaneous indication of longitudinal, transversal and oblique cracks in the course of only one operation.

### KMU 8/42 Cross Yoke

Pole spacing, mm	120x120
Pole cross section, mm	25 x 25
Dimensions, mm	235 x 180x320
Tangential field strength, A/cm	30
Lifting force, N	>300
Operating current, A	2x12
Duty cycle, %	60
Weight, kg	9,2
Cable length, m	5
Protection system	IP 54

To be delivered with transformer



Art.No. 131.016.100



## INDUCTIVE UV and WHITE LIGHT LED SOURCES

### Inductive UV Irradiation Source with swivel head



Art.No. 131.002.53

	1 X UV LED head	2 x UV LED heads
Operating current	appr. 500 mA	appr. 500 mA
UV Source	1 UV LED	2 UV LED
UV LED lifetime	appr. 10000 h	appr. 10000 h
UV intensity at 70 mm dist.	appr. 2000 µW/cm <sup>2</sup>	appr. 4000 µW/cm <sup>2</sup>
Wavelength	365 nm	365 nm
Weight	appr. 70 g	appr. 80 g
Dimensions	65 x 80 mm	65 x 80 mm



### Inductive White Light Source with swivel head



Art.No. 131.002.54

Operating current	appr. 500 mA
White light source	1 White Light LED
UV LED lifetime <sup>2</sup>	appr. 10000 h
UV intensity at 70 mm dist.	appr. 1000 lux
Weight	appr. 70 g
Dimensions	65 x 80 mm





## PERMANENT ELECTROMAGNETS

The portable HANSA – DC Permanent Electromagnets are battery powered and hereby network independent, direct current magnetizing devices for complete operator mobility - even in the field conditions.

The HANSA – DC magnets have a reduced weight and a comfortable ergonomic grip in order to facilitate a fatigue-free working.

The device surface is slightly rough, thereby the sliding in the hand is eliminated. The devices are fed by a powerful compact Li-Ion battery pack sufficient for continuous working time of about 2 hours. Battery charge status is indicated by 3 LEDs.

The carrying case for battery pack can be fastened quickly at the waist-belt.

The pull off strength by poles distance of 135 mm is more than 27 kg (265 N), while according to ASTM E1444 min. 22,5kg (225 N) are required.



### UM-9 / HANSA – DC Permanent Electromagnet

Pole spacing, mm	170
Pole cross section, mm	25x25
Dimensions, mm	250x135x49
Operating current, A	1,0
Voltage, V	6
Continuous working time, h	2
Protection type	IP65
Lifting force acc.to ASTM E1444 (N)	> 225
Weight, kg	2,7



Art.No. 131.002.124

### UM-10 / HANSA – DC Permanent Electromagnet

Pole spacing, mm	135
Pole cross section, mm	25x25
Dimensions, mm	210x110x51
Operating current, A	1,2
Voltage, V	6
Continuous working time, h	2,5
Protection type	IP65
Lifting force acc.to ASTM E1444 (N)	> 225
Weight, kg	2,0



Art.No. 131.002.124

## MOBILE MAGNETIZING DEVICES

### CROSS YOKE NR 01

#### Specifications:

Pole spacing, mm	360 x 360
Pole cross section, mm	60 x 60
Dimensions, mm	330 x 500 x 330
Tangential field strength, A/cm	48
Lifting force, N	>600
Operating current, A	3 x 50
Duty cycle, %	90
Weight, kg	80
Protection class	IP 6E

To be delivered with control desk



The NR 01 Cross Yoke is used for contact and non-contact magnetization of different parts. That is why the NR 01 Cross Yoke will especially do for inspection of tube ends, tooth gears and different cylinder parts.

### CROSS SHAPED COIL

The cross shaped coil is being used for non-contact magnetization of bars, billets, ingots or cylindrical parts. It is being fed by two equipotential alternating currents that are dephased by 90° generating a rotating magnetizing vector on the horizontal plane and thereby indicating surface cracks of any orientation. By rotating the part within the coil the whole surface can be tested (except for end faces).

#### Specifications:

Operating current, A	2 x 1300
Tangential field strength, A/cm	> 20
Duty cycle, %	30
Outer diameter without fittings, mm	approx. 650
Inner diameter, mm	550
Max. Ø of cylindrical test pieces, mm	approx. 250
Weight, kg	approx. 40
Protection class	IP 54

To be delivered with control desk



### HETT DEMAGNETIZING TUNNELS

The demagnetization effect of the AC demagnetizing tunnels is based on the principle of subjecting the part to a reversing and decreasing magnetic field. This can be accomplished by pulling a part out and away from a coil with AC passing through it.

The AC magnetic field penetration at 50 Hz frequency is about 2 mm (on steel). In order to increase the penetration depth an additional low-frequency generator with 16 2/3 Hz should be used.

	HETT 1500	HETT 2500	HETT 4500
Voltage, V	230	230	230
Field strength, A/cm	110	90	65
Dimensions, mm	325x260x260	325x390x390	325x580x577
Clear diameter, mm	150	250	450
Weight, kg	approx. 24	approx. 46	approx. 90





## HEAVY CURRENT GENERATORS

Specifications:	
Mains connection	230V, 50/60 Hz, Ceekon 16A
Power consumption, KVA	3
Testing current measured over 5 m high-current cable	
Effective, A	1 – 1100 AC
Peak, A	1555
Current adjustment	Infinitely
Short-circuit current, A	1500
Relative duty cycle, %	30
Current indication	analog
Operating mode	Magnetisation, demagnetisation, pulse mode
Power cable length, m	2 x 2,5
Power cable cross section, mm <sup>2</sup>	95
Dimensions, mm	520 x 240 x 320
Weight, kg	approx. 22



**HELLMAG 1000**

Art.No. 131.100.091

Specifications:	
Mains connection	400V, 50/60 Hz, Ceekon 32A
Power consumption, KVA	5
Testing current measured over 5 m high-current cable	
Effective, A	1 – 3000 AC
Peak, A	4242
Current adjustment	Infinitely
Short-circuit current, A	4000
Relative duty cycle, %	60
Current indication	analog
Operating mode	Magnetisation, demagnetisation, pulse mode
Power cable length, m	4 x 2,5
Power cable cross section, mm <sup>2</sup>	95
Dimensions, mm	630 x 300 x 324
Weight, kg	approx. 57



**HELLMAG 3000**

Art.No. 131.100.080

Specifications:	
Mains connection	400V, 50/60 Hz, Ceekon 63A
Power consumption, KVA	14
Testing current measured over 5 m high-current cable	
Effective, A	1 – 5000 AC / 1 - 2000 DC
Peak, A	7071
Current adjustment	Infinitely
Short-circuit current, A	7000
Relative duty cycle, %	30
Current indication	6" Touch Panel
Operating mode	Magnetisation, demagnetisation, pulse mode
Power cable length, m	4 x 2,5
Power cable cross section, mm <sup>2</sup>	240
Dimensions, mm	900 x 580 x 750
Weight, kg	approx. 200



**HELLMAG 5000**

Art.No. 131.100.085

## STATIONARY MAGNETIZING FACILITIES

### HELLMAG Type Vario 2500 Test Bench

The test bench Hellmag Type Vario 2500 has been designed for the combined magnetization with two magnetizing circuits - AC current flow and AC coil magnetization. Therefore the equipment is capable of simultaneous detecting flaws of any orientation. This bench is especially appropriate for testing railroad wheelset axles.

#### Specifications:

AC current flow (infinitely adjustable):	max. 3.000 A eff. 4.200 A peak
AC coil magnetization (infinitely adjustable): max. 4.500 AT	max. 4.500 AT
Clamping length:	2500 mm
Work piece weight:	max. 500 kg
Stroke length of quick-clamping device:	
Two-hand-control:	approx. 25 mm
Foot switch:	approx: 7 mm
Suspension tank:	40 l
Mains connection:	400 V, 3-phase
Control voltage:	24 V, 50 Hz
Power consumption:	approx. 75 kVA
Pressurized air:	5 – 6 bar
Automatic demagnetization:	yes



### Universal 450 Test Bench

This test bench has been designed for testing smaller batches and for training purposes.

#### Specifications:

AC current flow:	1200 A eff.
AC yoke magnetization:	approx. 12000 AT.
Clamping length:	60 – 450 mm
Tangential field strength:	approx. 30 A/cm
Relative duty cycle:	60 %
Data storage:	yes
Data transfer to PC:	yes
Mains connection:	400 V / 50 Hz
Power consumption:	max. 10 kVA
Open-circuit voltage, current flow:	6V
Open-circuit voltage, yoke magnetization:	22 V
Dimensions:	approx. 125x64x160 cm
Weight:	approx. 237 kg



### ZER-O-MAT MAGNETIZING AND REPAIR STATION

ZER-O-MAT® devices are magnetizing and inspection stations designed for the magnetic particle inspection of pipes, rods, bars and other tubular parts with the diameter from 20 up to 660 mm.

#### Specifications:

Mains connection	400 V / 50 Hz
Control voltage	230 V / 50 Hz
Power consumption	max. 90 kVA
Current	min. 250 A
Tangential field strength	≥ 24 A/cm
Test piece diameter	20 – 660 mm





## REFERENCE BLOCKS AND FIELD INDICATORS

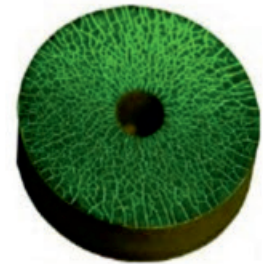
### Reference Block No.1 (DIN EN ISO 9934-2)

The reference block No.1 is a disc with 2 types of natural cracks on the surface. Coarse cracks are the result of the polishing, fine cracks are the result of stress corrosion. The block is permanently magnetized by central conductor through the hole. Estimation of magnetic particle suspensions is made by visual or other appropriated method of comparison of the indications

#### Specifications:

Sample diameter:	50 mm
Sample height:	10 mm
Cracks width:	2-10 $\mu\text{m}$

Art.No. 134.002.002



### Reference Block No.2 (DIN EN ISO 9934-2)

Reference block No. 2 is a self contained unit requiring no external magnetic field induction. It is used to determine the quality of the magnetic particle suspensions. The block consists of 2 soft iron bars, separated by a thin (15 $\mu\text{m}$ ) Al-foil, representing an artificial defect. Permanent magnets are set on the sample ends. Because of the permanent magnetic field the bars get magnetized and magnetic particles accumulate over the artificial defect, forming the indication lines. The quality of the suspension or dry powder is estimated over the summarized length of the lines.

#### Specifications:

Dimensions (LxWxH):	155x40x12 mm
Tangential component of magnetic field over the artificial defect at points G (-4):	-1A/cm
B (4):	1A/cm

Art.No. 134.002.100



### Berthold Magnetic Field Indicator (Penetrameter)

The Berthold indicator is designed to determine the strength and direction of the selected magnetizing setup and the quality of fluorescent magnetic powder suspension.

When placed on a magnetized test piece, magnetic lines pass through the sectioned iron cylinder. The cuts on the iron cylinder will be visible when magnetic powder or fluorescent magnetic solution is applied. Maximum indication direction is achieved by rotating the sample about its axis. The field direction is perpendicular to the flaw at maximum indication. Magnetizing efficiency, penetration and quality of the fluorescent oil suspension can be determined by slowly turning the outside ring of the field indicator, increasing the distance between the thin brass plate and the test piece. The amount of lift-off at the point where the indication just appears gives a measure of magnetic field test efficiency.

#### Specifications:

Sample diameter:	20 mm
Sample height:	5 mm
Holder length:	95 mm
Weight:	24 g

Art.No. 134.003.000



## MP-1000 Magnetic Field Meter

MP - 1000 is a handy universal instrument for measuring all magnetic fields, intended for fast, onsite measurements:

- Measurement of all kinds of steady and alternating fields (True-RMS).
- Very fast, integrated peak value store for measuring pulsed fields  $\geq 0.1$  msec.
- Measuring range up to 2000 kA/m, switchable between Gauss(Oe) and A/cm.
- Simple, one-button operation; automatic range selection.
- Can be used with tangential, axial or reed probes.



Scope of supply: MP - 1000 without measuring probe, incl. Certificate of Calibration, probe cable and carrying case

Art.No. 133.005.027

### Specifications:

Display	LCD 3-digit
Measurement Units	A/cm - Gauss(Oe) (selectable)
Measuring ranges	DC: 0-20.000 A/cm (Gauss/Oe) AC: 20-20.000 A/cm (Gauss/Oe) Automatic range selection
Resolution	0-100 A/cm (Gauss): 0,1 A/cm (G) > 100 A/cm (Gauss): 1 A/cm (G) > 10.000 A/cm (Gauss): 0,1 kA/cm (kG)
Accuracy in homogeneous filed	DC/AC - 0-2000 kA/m + 2%
AC frequency range (AC=RMS)	10 Hz – 5 kHz
Peak hold	Impuls duration $\geq 0.1$ msec
Power supply	2 x 1,5V AA Mignon alternatively 2 x 1,2V AA rechargeable accumulators
Operating time	Appr. 80 hrs
Measuring probes	P-A2 axial, P-T2 tangential, P-Z2 flexible reed
Dimensions	105 x 65 x 26 mm
Weight	137 g (with batteries)

## MP-2000 Magnetic Field Meter

MP - 2000 Universal Field Meter is the top model with special functions, offering the professional user every possibility:

- Measurement of all kinds of steady and alternating fields (True-RMS).
- Very fast, integrated peak value store for measuring pulsed fields  $\geq 0.1$  msec.
- Measuring range up to 4000 kA/m, switchable between Tesla - Gauss - A/cm - kA/m.
- Illuminated graphic display with additional analogue measured value indication
- Automatic range selection.
- Menu navigation in various languages.
- Measurement store (10,000 measurements), divisible into up to 100 applications memories.
- Can be used with tangential, axial or reed probes.
- Integrated RS232 and USB - wireless interfaces for documenting the measurement results on a PC or printer



Art.No. 133.005.028

Scope of supply: MP - 2000 without measuring probe, incl. Certificate of Calibration, probe cable, USB radio receiver and carrying case.

### Specifications:

Display	Illuminated graphic display
Measurement Units	kA/m - A/cm - Gauss(Oe) - Tesla (selectable)
Measuring ranges	DC: 0- 4000 kA/m; 0-40000 A/cm (Gauss/Oe); 0-4000 mT AC: 20-20000 A/cm (Gauss/Oe); 20-2000 kA/m; 20-2000 mT Automatic range selection
Resolution	0-200 A/cm (Gauss): 0,1 A/cm (G) > 200 A/cm (Gauss): 1 A/cm (G) > 10000 A/cm (Gauss): 1 kA/cm (G) 0-20 kA/m (mT): 0,01 kA/m (mT) > 20 kA/m (mT): 0,1 kA/m (mT) > 1000 kA/m (mT): 1 kA/m (mT)
Accuracy in homogeneous filed	DC/AC – 0-2000 kA/m + 2%; > 2.000 kA/m + 3%
AC frequency range (AC=RMS)	10 Hz – 5 kHz
Peak hold	Impulse duration $\geq 0.1$ msec
Power supply	3 x 1,5V AA Mignon, or 3 x 1,2V AA rechargeable accumulators
Operating time	Appr. 100 hrs
Measuring probes	P-A2, P-A4 axial, P-T2, P-T4 tangential, P-Z2, P-Z4 flexible reed
Statistical evaluation	X
Dimensions	198 x 92 x 35 mm
Weight	265 g (with batteries)



## UV SOURCES

### ZERO 400 IP 20 stationary mercury-vapour UV lamp

The lamp has a steel housing incorporating all electrical components like starting controller, follow-up relay, mains switch, protective devices, temperature monitoring device, ventilator, connector block and aluminum case for UV radiant (400 W). The main power supply cable is the Oilflex 540 P.

The ZERO 400 IP 20 lamp is furnished with a UVB long-pass filter, which cuts off the emission in UV-B and UV-C spectral ranges, protects the bandpass filter and limits the glass surface temperature to 80°C.

The lamp can be switched between two levels of UV irradiation intensity and thereby two risk classes.

#### Specifications:

Input voltage	230V - 50/60Hz
Operating current	approx. 3,3 A
Warm-up time	approx. 3-4 min
Recovery time	< 10 min.
UV radiant	1 x HTC 400
Life time of UV irradiator	approx. 1500 hrs.
UV intensity at 400 mm	risk class II – 3500 $\mu\text{W}/\text{cm}^2$ , risk class III - 5500 $\mu\text{W}/\text{cm}^2$
Wavelength	365 nm
Emission half-width	approx. 27 nm
Risk class acc. to EM6	II / III (switchable)
Weight	approx. 31 kg
Dimensions	500x500x300 mm
Protection class	IP 20



Art.No. 144.000.404



ZERO 400 IP 54  
stationary mercury-vapour  
UV lamp

Art.No. 144.000.403



ZERO 800 IP 54  
stationary mercury-vapour  
UV lamp

Art.No. 144.000.801

ZERO 400-A-UV  
stationary mercury-vapour  
UV lamp

Art.No. 144.000.408



The ZERO 400-A-UV is a compact lamp consisting of lamp housing with above-mounted ventilator and separate starting controller. The ZERO 400-A-UV lamp is furnished with a UVB long-pass filter, which cuts off the emission in UV-B and UV-C spectral ranges, protects the bandpass filter and limits the glass surface temperature to 80°C.

Helling Superlight C 10 A-HE  
portable mercury-vapour  
UV lamp

Art.No. 142.000.200



The Superlight C 10 A-HE lamp consists of three construction units: 1. power supply unit in a aluminum housing with integrated starting controller, switch and plug; 2. UV source with connection cable; 3. aluminum holder

Helling Superlight C 10 A-SH  
portable focused mercury-vapour  
UV lamp

Art.No. 142.000.300



The Superlight C 10 A-SH lamp consists of three construction units: 1. power supply unit in a aluminum housing with integrated starting controller, switch und plug; 2. UV source with connection cable; 3. aluminum holder

**Helling Superlight C 10 A-S portable mercury-vapour UV lamp**

The Superlight C 10 A-S lamp consists of two construction units: 1. Metal case with integrated power supply unit, starting controller, switch, plug and holder; 2. UV source with connection cable

**Advantages:**

Additional spotlight with low voltage 12V (10W) for orientating illumination in dark rooms. Additional safety socket, e.g. for connecting an electromagnet. Also useful for leak testing of oils with intrinsic fluorescence or oils treated with H 800 fluorescent additive

**Scope of supply:**

Metal case with starting controller, cable and holder; UV source case with HN 100 UV lamp, structured band-pass filter and UVB long-pass filter; UV protective glasses



Art.No. 142.000.110

**Specifications:**

Input voltage	230V - 50/60Hz
Operating current	approx. 1,2 A
Warm-up time	< 5 min.
Recovery time	< 10 min.
UV source	HN 100W-E27
Lifetime of UV source	approx. 1500 hrs.
UV intensity at 400 mm	4000 µW/cm <sup>2</sup>
Wavelength	365 nm
Emission half-width	approx. 1,5 nm
Spotlight	Sofitte 12 V – 10W
Risk class acc. to EM6	II
Weight	approx. 7.5 kg
Dimensions	280x280x140 mm
Protection class	IP 20



**Helling Superlight C 10 A-SHK  
portable focused mercury-vapour UV lamp**

Art.No. 142.050.300

The Superlight C 10 A-SHK consists of two construction units: 1. Metal case with integrated power supply unit, starting controller, switch, plug and holder; 2. UV source with connection cable



**Helling Super UV 2005  
portable focused mercury-vapour UV lamp**

Art.No. 142.000.106

The Super UV 2005 lamp consists of two construction units: 1. power supply unit in a steel housing with integrated starting controller, switch and plug; 2. UV source with connection cable



## ZERO 700/7 stationary UV LED lamp



ZERO 700/7 is a compact stationary UV LED lamp, which can be equipped additionally with a white light LED bar. The plain aluminium housing integrates 63 UV LEDs, optics, active cooling and starting controller.

The ZERO 700/7 lamp distinguishes itself by high efficiency at low power consumption, low heat generation and next to unlimited lifetime of the UV radiant. Furthermore the lamp doesn't require any warm-up time and thereby is immediately ready for use after switch on.

Specifications:	Art.No. 144.200.020
Input voltage	230 V/50Hz
Operating voltage	36 V
Operating current	approx. 4,4 A
UV Source	63 x UV LED
Life time of UV-LED's	approx. 20000 hrs
UV-intensity at 400 mm	> 7.000 $\mu\text{W}/\text{cm}^2$
Wave length	365 nm
Emission half-width	8,5 nm
Weight	approx. 5,1 kg
Dimensions	750 x 140 x 65 mm
Risk class acc. to EM 6	II
White light rate	< 3 lx
Protection class	IP 20

## ZERO 400/3 stationary UV LED lamp



ZERO 400/3 is a compact stationary UV LED lamp which can be additionally equipped with a swivel arm and/or white light LED bar.

The swivel arm serves for horizontal and vertical lamp adjustment. For passive cooling the lamp has a ribbed aluminium housing which integrates 27 UV LEDs, optics and starting controller.

The lamp excels in its power efficiency, energy consumption, low heat generation, near to unlimited LED life time and immediate operation readiness without warm-up time.

Specifications:	Art.No. 144.200.029
Input voltage	230 V/50Hz
Operating voltage	36 V
Operating current	approx. 1,2 A
UV Source	27 x UV LED
Life time of UV-LED's	approx. 20000 hrs
UV-intensity at 400 mm	approx. 3.800 $\mu\text{W}/\text{cm}^2$
Wave length	365 nm
Emission half-width	8,5 nm
Weight	approx. 4,1 kg
Dimensions	430 x 135 x 30 mm
Risk class acc. to EM 6	II
White light rate	< 3 lx

## ZERO 400/6 stationary UV LED lamp

Art.No. 144.200.031



## ZERO 200/2 stationary UV LED lamp

Art.No. 144.200.041



## ZERO 400/4 stationary UV LED lamp

Art.No. 144.200.030



## SLIM-LINE stationary UV LED lamp

Art.No. 144.100.001



## ZERO 500/5 stationary UV LED lamp

Art.No. 144.200.025



## ZERO-2500 IP 65 stationary UV LED lamp

Art.No. 144.002.510



## UV-Inspector 2012 Standard UV LED Hand lamp

Handy battery powered UV LED hand lamp for application in NDT, criminalistics, as well as leak testing of oils with intrinsic fluorescence or oils treated with H 800 fluorescent additive.

Specifications:	Art.No. 142.200.416
Operating voltage	18 V
Operating current	approx. 750 mA
UV Source	4 x UV LED
Life time of UV-LED's	approx. 20000 hrs
UV-intensity at 400 mm	approx. 2.500 $\mu\text{W}/\text{cm}^2$
Wavelength	365 nm
Emission half-width	8,5 nm
Weight	approx. 1,350 kg
Dimensions	75 x 320 x 110 mm
Risk class acc. to EM 6	II



UV-Inspector 2012 SH  
UV LED Hand lamp

Art.No. 142.200.422

UV Inspector 3000-N  
UV LED Hand lamp

Art.No. 142.200.511

UV Inspector 3000-N, LH-1 Type  
UV LED Hand lamp

Art.No. 142.201.512

Scope of supply:  
UV lamp with accumulator and reserve accumulator, charging unit, UV protective glasses, aluminum case.

## UV-Inspector 711 UV LED Hand lamp

Compact battery powered UV LED hand lamp for application in NDT, criminalistics, as well as leak testing of oils with intrinsic fluorescence or oils treated with H 800 fluorescent additive. The lamp has a built-in rechargeable battery; the charger jack is mounted in the lamp handle.

Specifications:	Art.No. 142.500.007
Operating voltage	16,8 V (4 x 4,2 V battery)
Operating current	approx. 650 mA
UV Source	3 x UV LED
Life time of UV-LED's	approx. 20000 hrs
UV-intensity at 400	mm approx. 1.700 $\mu\text{W}/\text{cm}^2$
Wave length	365 nm
Emission half-width	8,5 nm
Weight	approx. 0,900 kg
Dimensions	160 x 200 x 80 mm
Risk class acc. to EM 6	II



Art.No. 142.500.008

UV-Inspector 711 SH  
UV LED Hand lamp

Art.No. 142.500.001

UV-Inspector 801  
UV LED Hand lamp

Art.No. 142.500.003

UV-Inspector 801  
SH UV LED Hand lamp

### Scope of supply:

UV lamp with accumulator, charging unit, UV protective glasses, aluminum case.

UV-Inspector 385  
UV LED Pocket lamp

UV-Inspector Policheck NDT  
UV LED Pocket lamp



Art.No. 142.200.129



Art.No. 142.200.139



## UV Inspector 380-R UV LED Pocket lamp

### Specifications:

Operating voltage	4,8 V (4 x 1,2 V battery)
Operating current	approx. 650 mA
UV source	1 x UV LED
Lifetime of UV LED	approx. 20000 hrs
UV intensity at 400 mm	approx. 1.200 $\mu\text{W}/\text{cm}^2$
Wavelength	365 nm
Emission half-width	8,5 nm
Weight	approx. 0,320 kg
Dimensions	170 x 45 mm
Risk class acc. to EM6	II



Art.No. 142.200.109

Scope of supply: UV lamp, 4 x NiMh batteries, UV protective glasses.

## UV Inspector 365 UV LED Pocket lamp

UV LED pocket lamp in aluminium housing for application in NDT, criminalistics, as well as leak testing of oils with intrinsic fluorescence or oils treated with H 800 fluorescent additive.

### Specifications:

Operating voltage	4,8 V (4 x 1,2 V battery)
Operating current	approx. 650 mA
UV source	1 x UV LED
Lifetime of UV LED	approx. 20000 hrs
UV intensity at 400 mm	approx. 6.000 $\mu\text{W}/\text{cm}^2$
Wavelength	365 nm
Emission half-width	8,5 nm
Weight	approx. 0,320 kg
Dimensions	170 x 45 mm
Risk class acc. to EM6	II



Art.No. 142.200.301

Scope of supply: UV lamp, 4 x NiMh batteries, UV protective glasses.

## UV-Flash Camera

The UV-flash camera is an easy-to-use camera with integrated UV flash and infrared shortpass filter designed for documenting fluorescent images. It is used during penetrant and magnetic particle inspection to capture fluorescent defect indications. This camera is also useful for reclamation reports, further it can be applied in criminalistics for detection of false banknotes, licenses, papers and other materials.

The UV-flash camera is appropriate for fluorescent indications photographing even by daylight (appr. 150 – 200 lx).

Specifications:  
10,0 megapixel  
10 x optical zoom  
Optical image stabilizer  
3,00 inch LCD  
Digic 4  
Smart AUTO



Art.No. 147.000.100

**LEAK TESTING**



Leak detection in automobile engine by use of H 800 fluorescent concentrate

Art.No. 616.000.034



Detection of vessel depressurization by use of H 849 fluorescent concentrate

Art.No. 616.100.102

**Proof Check – aerosol foam-film indicator**



Art.No. 616.000.001



Leak detection using Proof Check

An emulsion containing surface-active, film-forming and moisture-retaining agents, having low surface tension, high foam-forming ability and crawl resistance.

Detection time for leaks with leakage rate  $> 1 \times 10^{-4} \text{ m}^3\text{Pa/s}$  is 2 to 3 seconds, for leaks with leakage rate of about  $1 \times 10^{-7} \text{ m}^3\text{Pa/s}$  the detection time is 15 minutes upon the average.



Leak detection in cooling system by use of fluorescent concentrate



Art.No. 613.100.010

**HELLOPHONE  
Ultrasonic Leak Detector**



Art.No. 611.002.015

**ISH 2000-C Hydrogen  
Leak Detector**



Art.No. 613.000.020

**PHD-4 Helium  
Leak Detector**



## RADIOGRAPHIC TESTING

### RB-3 X-ray view box

X-ray view box for radiographic films with optical density  $D < 3,65$

#### Specifications:

Art.No. 241.003.000

Screen:	440 x 85 mm
Additional blind 1:	440 x 50 mm (for films of 60 mm width)
Additional blind 2:	with 30 mm aperture
Luminance:	45 000 cd/m <sup>2</sup>
Optical density:	D=3,65
Light emitter:	11 x halogen, 24 V at 150 W
Input voltage:	230 V 50 Hz
Power consumption:	1400 VA
Dimensions:	655 x 272 x 225 mm
Weight:	11 kg
Light adjustment:	manual or by foot switch



### LED X-ray view box



### RB-2 X-ray view box



Art.No. 241.002.000

### FUJI FNDX 2.0b – NDT Film Processor



Processing machine for industrial X-ray films with space-saving design. Can be easily installed in a darkroom or in a container. Compatible with all industry standards.

The roller transport system is designed in such a way that the rollers always remain below the solution level, eliminating crystallization problems, so that roll and sheet films can be developed without any damage of the film surface.

#### Specifications:

Development time:	electronically adjustable from 1.5 to 9.4 minutes
Temperature control:	electronically adjustable between 18° C and 43° C
Regeneration system:	automatic regeneration, calculable upon film surface scans
Film formats:	Sheet films of up to 43 cm width, as well as roll films
Tank capacity:	7,5 liters for developer bath, 6,5 liters for fixer bath, 6,5 liters for water
Power connection:	220 / 240 Volts, 16A, 50 / 60 Hz
Consumables:	IX x-ray films, Fuji chemistry
Safety:	meets UL safety regulations, GS / CE label certified

### FUJI FNDX 5 – NDT Film Processor



Art.No. 232.010.003

### FUJI FNDX 2.0b – NDT Film Processor



Art.No. 232.010.002

### FUJI FNDX 1 – NDT Film Processor



Art.No. 232.010.001

**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.**  
Fluorescent penetrants - type 1 -, method A, Water washable - and  
usable for Methode C (solvent remover)

Manufacturer	Level 0,5(1/2)	Level 1	Level 2	Level 3	Level 4
<b>SHERWIN (DUBL-CHECK + AQUA-CHEK)</b>	HM-1	WB-100	HM-3A	HM-430	HM-704
	-	HM-2D	HM-406	HM-604	HM-707
	-	HM-220	WB-200	HM-607	-
	-	WB-101	WB-201	-	-
	-	-	HM-412	-	-
	-	-	HM-440	-	-
	-	-	HM-602	-	-
<b>American Gas and Chemical</b>	AG-1 /2 -FW	AG-1C -FW	AG-2AFW	AG-3A -FW	AG-4C-FW
	-	-	-	-	AG-4D-FW
<b>Chemetall (Ardrox)</b>	970P21	970P22/E	970P23/E	970P25/E	970P26E
	-	P131D/E	970P24/E	P135D	P136E
	-	P6F1	P133D/E	P6F3	P6F5
	-	9731	P134D/E	P6F4	-
	-	-	P6F2	9733	-
	-	-	9732	-	-
<b>Cigiemme</b>	-	-	-	-	-
<b>Dynamold</b>	-	-	-	-	-
<b>Ecolink</b>	-	-	-	-	-
<b>Eishin Kagaku (Neo-Glo)</b>	-	F-4A/1	F-4A-B/1	F-4A-C/1	F-4A-E/2
<b>Ely Chemical (Briemor)</b>	-	444	4455	446	447
	-	445	4455A	-	-
<b>ITW Magnaflux (Zyglo)</b>	ZL-15B	ZL-19	ZL-60C	ZL-67	ZL-56
	-	-	ZL-60D	ZL-67A	-
	-	-	ZL-61	-	-
<b>Karl Deutsch (KD-Check)</b>	-	-	-	FWP-2	-
<b>Marktec</b>	P-100	P-110A	P-120	P-130	P-141D
	-	-	P-121	P-131	P-141E
	-	-	P-122	P-140E	-
<b>Met-I-Chek + Pen-Chek</b>	FP-900	FBP-911	FBP-912	FBP-913	FBP-914
	-	FP-901	FP-922	FP-923	-
	-	FP-921	FP-902	FP-903	-
	-	-	FP-92B(M)	FP-98A	-
<b>SPCA</b>	PWHS-20	PWHS-24A	PWHS-25	-	-
<b>Taseto</b>	-	-	-	-	-
<b>Western Chemical Intl.</b>	-	-	-	-	-



**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.**

Fluorescent penetrants - type 1 - ,method B, C & D post emulsifiable

Manufacturer	Level 1	Level 2	Level 3	Level 4
SHERWIN (DUBL-CHECK )	RC-29	RC-50	RC-65	RC-77
	-	FP-22B	-	RC-88
American Gas and Chemical	AG-1-FS	AG-2-FS	AG-3D-FS	AG-4B-FS
	AG-1A-FS	AG-2A-FS	AG-3E-FS	-
Chemetall (Ardrox)	985-P11	985-P12	985-P13	985-P14
	-	-	P7F3(nur B+D)	-
Cigiemme	-	MG-22(nur C+D)	MG-27(nur C+D)	MG-54(2)(nur C+D)
	-	-	MG-46(2)(nur C+D)	-
Dynamold	-	-	-	-
Ecolink	-	-	-	-
Eishin Kagaku (Neo-Glo)	F-5L/1	F-5L-SP/1	F-6A/1	F-6A-SP/1
Ely Chemical (Briemor)	-	555	600	668 (nur C+D)
	-	-	667A	668A
ITW Magnaflux (Zyglo)	ZL-1D	ZL-2C	ZL-27A	ZL-37
Karl Deutsch (KD-Check)	-	-	-	-
Markttec	P-210	P-220	P-230	P-240
Met-I-Chek + Pen-Chek	FP-94	FP-93A(M)	FP-95A(M)	FP-97A(M)
SPCA	-	PWHS-42(nur C+D)	PWHS-43A(nur C+D)	PWHS-47(nur C+D)
Taseto	-	-	-	AP-6(nur C+D)
Western Chemical Intl.	-	-	-	-

**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.**

Lipophilic (method B) and hydrophilic (method D) emulgators for fluorescent penetrants, type 1 (AMS-2644)

Manufacturer	Level 1	Level 2	Level 3	Level 4
SHERWIN (DUBL-CHECK )	ER-85	ER-85	ER-85	ER-85
American Gas and Chemical	AG-FL	AG-FL	AG-FL	AG-FL
Chemetall (Ardrox)	9PR3	9PR3	9PR3	9PR3
Cigiemme	-	-	-	-
Dynamold	-	-	-	-
Ecolink	-	-	-	-
Eishin Kagaku (Neo-Glo)	F-5E-SP/1	F-5E-SP/1	F-5E-SP/1	F-5E-SP/1
Ely Chemical (Britemor)	-	L-80	L-80	L-80
ITW Magnaflux (Zyglo)	ZE-4B	ZE-4B	ZE-4B	ZE-4B
Karl Deutsch (KD-Check)	-	-	-	-
Marktec	E-400	E-400	E-400	E-400
<b>Met-I-Chek + Pen-Chek</b>	<b>E-57</b>	<b>E-57</b>	<b>E-57</b>	<b>E-57</b>
SPCA	-	-	-	-
Taseto	-	-	-	-
Western Chemical Intl.	-	-	-	-

**Hydrophilic emulsifiers - method D**

Manufacturer	Level 1	Level 2	Level 3	Level 4
SHERWIN (DUBL-CHECK )	ER-83A(30%)	ER-83A(30%)	ER-83A(30%)	ER-83A(30%)
	ER-83B	ER-83B	ER-83B	ER-83B
American Gas and Chemical	AG-FH(20%)	AG-FH(20%)	AG-FH(20%)	AG-FH(20%)
Chemetall (Ardrox)	9PR12(10%)	9PR12(10%)	9PR12(10%)	9PR12(10%)
	-	-	E-1(10%) nur P7F3	-
Cigiemme	-	VE-100(20%)	VE-100(20%)	VE-100(20%)
Dynamold	-	-	-	-
Ecolink	-	-	-	-
Eishin Kagaku (Neo-Glo)	F-6E-W/1(20%)	F-6E-W/1(20%)	F-6E-W/1(20%)	F-6E-W/1(20%)
Ely Chemical (Britemor)	-	H91(20%)	H91(20%)	H91(20%)
	-	H91A(20%)	H91A(20%)	H91A(20%)
ITW Magnaflux (Zyglo)	ZE-10B(20%)	ZE-10B(20%)	ZE-10B(20%)	ZE-10B(20%)
	-	ZE-10C(20%)	ZE-10C(20%)	ZE-10C(20%)
Karl Deutsch (KD-Check)	-	-	-	-
Marktec	R-500(30%)	R-500(30%)	R-500(30%)	R-500(30%)
<b>Met-I-Chek + Pen-Chek</b>	<b>E-58D(20%)</b>	<b>E-58D(20%)</b>	<b>E-58D(20%)</b>	<b>E-58D(20%)</b>
SPCA	-	EH-5(20%)	EH-5(20%)	EH-5(20%)
Taseto	-	-	-	AE-56(20%)
Western Chemical Intl.	-	-	-	-



**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.  
Red dye penetrants - type 2**

Manufacturer	Method A Waterwashable	Method B Post emulsifiable Lipophilic emulgator	Method C Solvent removable	Method D Post emulsifiable hydrophilic emulgator
SHERWIN(DUBL-CHECK)	DP-55	DP-40	DP-55	DP-40
	DP-51	-	DP-51	-
	DP-54B	-	DP-54B	-
	KO-17	-	KO-17	-
	-	-	DP-40	-
American Gas and Chemical	AG-1-VW	AG-1-VS	AG-1-VW	-
	AG-1A-VW	AG-1B-VS	AG-1A-VW	-
	-	AG-1C-VS	AG-1-VS	-
	-	-	AG-1B-VS	-
	-	-	AG-1C-VS	-
Chemetall (Ardrox)	906	996	906	-
	907PB	996PB	907PB	-
	P6R	-	P6R	-
	-	-	996	-
	-	-	996PB	-
Cigiemme	-	-	-	-
Dynaflux	-	-	P-HF	-
Eishin Kagaku (Red-Mark)	R-3B(NT)/1	-	R-1A(NT)/1	-
	-	-	R-3B(NT)/1	-
Ely Chemical (Checkmor)	200	222	200	222
	-	-	222	-
ITW Magnaflux (Spotcheck)	SKL-WP	SKL-SP	SKL-WP	SKL-SP
	-	SKL-SP1	SKL-SP	SKL-SP1
	-	-	SKL-SP1	-
Karl Deutsch (KD-Check)	-	-	-	-
Marktec	MP-G3T	-	MP-G3T	-
	-	-	MP-T	-
Met-I-Chek + Pen-Chek	VBP-300	VP-31A	VBP-300	-
	VP-30	-	VP-30	-
	-	-	VP-31A	-
SPCA	P-138/V	-	P-138/V	-
Taseto	-	-	FP-S	-
Western Chemical Intl.	-	-	-	-

**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.**

**Lipophilic & hydrophilic emulgator (AMS-2644)**

Manufacturer	Method B Lipophilic emulgator	Method D hydrophilic emulgator
SHERWIN (DUBL-CHECK )	ER-85	ER-83A (30%)
American Gas and Chemical	AG-VL	-
Chemetall (Ardrox)	9PR2	-
Cigiemme	-	-
Dynaflux	-	-
Dynamold	-	-
Ecolink	-	-
Eishin Kagaku (Red-Mark)	-	-
Ely Chemical (Checkmor)	L-80	H91(20%)
	-	H91A(20%)
ITW Magnaflux (Spotcheck)	EZ-4B	ZR-10B
Karl Deutsch (KD-Check)	-	-
Marktec	-	-
Met-I-Chek + Pen-Chek	E50	-
SPCA	-	-
Taseto	-	-
Western Chemical Intl.	-	-



**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.**

Developers for fluorescent penetrants -type 1- form a,b,c,d,f (AMS-2644)

Manufacturer	Method A Dry power	Method B Water soluble	Method C Water suspendible	Method D nonaqueous, solvent base	Method F Special Application
SHERWIN (DUBL-CHECK + AQUA-CHEK)	D-90G	D113G.1	D110A.1	D-100	-
	D-90G.1	-	-	D-104	-
	D-99A	-	-	D-104	-
	-	-	-	D-106	-
American Gas and Chemical	AG-DD	-	AG-WD	AG-DN	-
Chemetall (Ardrox)	9D4A	9D75	9D76	9D1B	-
	D-1	-	-	NQ1	-
Cigiemme	D-1	-	-	-	-
Dynaflux	-	-	-	-	FDS
Dynamold	-	-	-	-	-
Ecolink	-	-	-	-	-
Eishin Kagaku (Neo-Glo)	F-5D/1	-	F-4W-SP/1	F-1S(NT)/1	-
	-	-	-	F-4S(NT)/1	-
Ely Chemical (BriteMor)	PD3	-	LDW	LD3	-
	PD4	-	-	LD5	-
	-	-	-	LD-6	-
	-	-	-	LD-7	-
ITW Magnaflux (Zyglo)	ZP-4A	ZP-14A	ZP-5B	SKD-S2	-
	ZP-4B	-	-	ZP-9F	-
Karl Deutsch (KD-Check)	-	-	-	-	-
Marktec	D-700	D-721	D-720	D-701	-
	-	-	-	D-712	-
Met-I-Chek + Pen-Chek	D-72A	D-76B	D-76B	D-70	-
SPCA	RP-1	-	-	R-764/S1	-
Taseto	ADD-456	-	-	-	-
Western Chemical Intl.	-	-	-	-	-

**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.**

Developers for fluorescent penetrants -type 2- form c and e (AMS-2644)

Manufacturer	Method c Water suspendible	Method e nonaqueous, solvent base
SHERWIN (DUBL-CHECK)	D-110A.1	D-100
	-	D-104
	-	D-105
	-	D-106
American Gas and Chemical	AG-WD	AG-DN
Chemetall (Ardrox)	9D76	9D1B
	-	NQ1
	-	NQ1RVSL
Cigiemme	-	-
Dynaflux	-	D-F
Dynamold	-	-
Ecolink	-	-
Eishin Kagaku (Red-Mark)	F-4W-SP/1	R-1S(NT)/1
	-	F-4S(NT)/1
Ely Chemical (Checkmor)	LDW	LD-3
	-	LD-5
	-	LD-6
	-	LD-7
ITW Magnaflux (Spotcheck)	ZP-5B	SKD-S2
	-	ZP-9F
Karl Deutsch (KD-Check)	-	-
Marktec	-	D-701
	-	MD-T
Met-I-Chek + Pen-Chek	D-78B	D-70
SPCA	-	R-764/S1
Taseto	-	FD-S
Western Chemical Intl.	-	-



**Products qualified under SAE aerospace  
Material specification SAE AMS 2644; inspection material, penetrant.**

**Solvent remover class 1,2 and 3 (AMS-2644)**

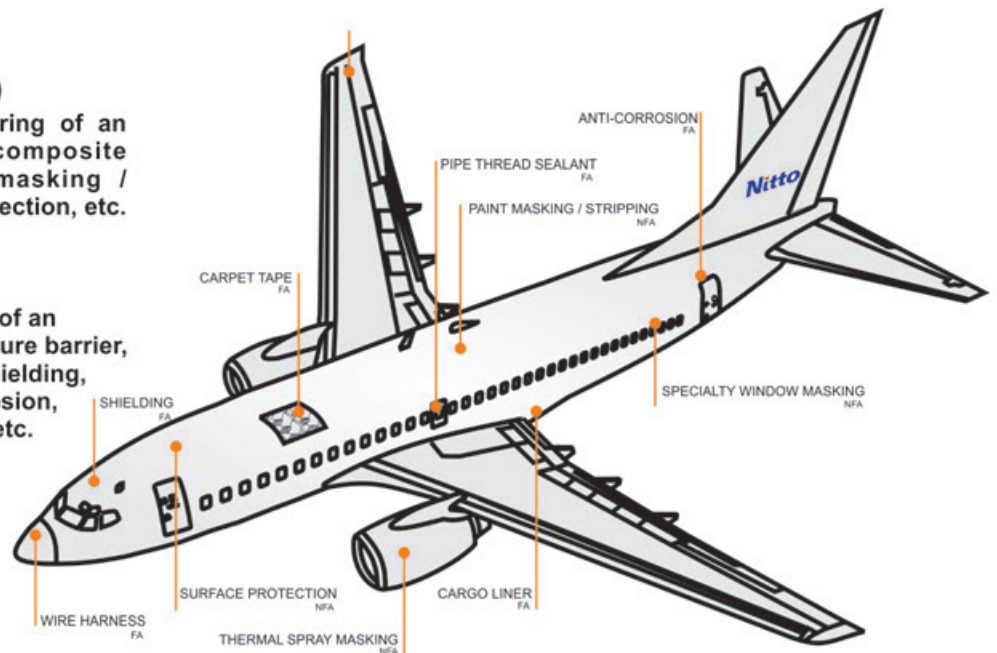
Manufacturer	Class 1 halogenated	Method B nonhalogenated	Method C special application
SHERWIN (DUBL-CHECK + AQUA-CHEK)	-	DR-60	-
	-	DR-62	-
	-	DR-63	-
	-	DR-64	-
	-	KO-19	-
American Gas and Chemical	-	AG-1-RS	-
	-	AG-2-RS	-
	-	AG-3-RS	-
	-	AG-RS	-
Chemetall (Ardrox)	-	9PR5	-
	-	9PR50 / A / B / C	-
	-	9PR70	-
	-	9PR80	-
	-	PR1	-
Cigiemme	-	-	-
Dynaflux	-	C-F	FCS
Dynamold	-	DS-104	-
	-	DS-108	-
Ecolink	-	Electron-NDE Dielectric	-
Eishin Kagaku (Neo-Glo + Red-Mark)	-	R-1M(NT)/1	-
Ely Chemical (Briemor + Checkmor)	-	S-72	-
	-	S-74	-
	-	S-76	-
ITW Magnaflux (Zyglo + Spotcheck)	-	SKC-HF	-
	-	SKC-S	-
Karl Deutsch (KD-Check)	-	-	-
Marktec	-	MR-T	-
	-	MR-TM	-
	-	S-600	-
Met-I-Chek + Pen-Chek	-	E-59	-
	-	E-59A	-
	-	R-503	-
	-	R-504	-
SPCA	-	C-10/S1	-
Taseto	-	FR-Q	-
Western Chemical Intl.	Rapid Clean HF98	EPA 2000	-

### NON FLY-AWAY TAPES (NFA)

Products used in the manufacturing of an aircraft or its components: composite bonding, flame spray, paint masking / stripping, processing, surface protection, etc.

### FLY-AWAY TAPES (FA)

Products used in the construction of an aircraft : cargo bay seaming, moisture barrier, mounting, sound damping, heat shielding, cable harness wrapping, anti-corrosion, electrical and electronic systems, etc.



## WIRE HARNESS

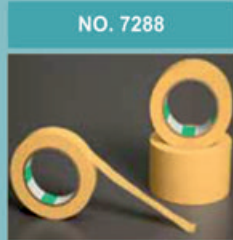
	<b>NO. 21</b>  VINYL ADHESIVE TAPE	<b>NO. 223S</b>  FLAME RETARDANT VINYL ELECTRICAL TAPE	<b>P-100</b>  ALUMINUM FOIL / GLASS CLOTH	<b>P-212 WHT</b>  7.5 MIL GLASS CLOTH
<b>P-212HD WHT</b>  10 MIL GLASS CLOTH	<b>P-221 AMB</b>  1 MIL KAPTON* POLYIMIDE FILM	<b>P-222 AMB</b>  2 MIL KAPTON POLYIMIDE FILM	<b>P-223 AMB</b>  1 MIL DOUBLE COATED KAPTON POLYIMIDE FILM	<b>P-224 AMB</b>  1 MIL KAPTON POLYIMIDE FILM
<b>P-421 NAT</b>  5 MIL PTFE FILM TAPE	<b>P-422 NAT</b>  2 MIL PTFE FILM TAPE	<b>P-423 NAT</b>  2 MIL BONDABLE PTFE FILM TAPE	<b>P-424 NAT</b>  10 MIL PTFE FILM TAPE	<b>P-430 NAT</b>  2 MIL PTFE FILM TAPE

## CARPET TAPE

<b>P-50</b>  MULTI-PURPOSE DOUBLE-COATED CLOTH TAPE	<b>P-51</b>  FLAME RETARDANT CARPET TAPE	<b>P-55 / P-55B</b>  FLAME RETARDANT DOUBLE-COATED CLOTH TAPE
---	--	---



**PAINT MASKING / STRIPPING**



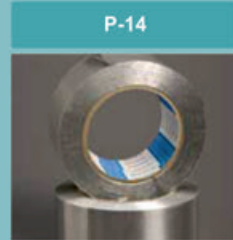
HEAT RESISTANT FLAT PAPER MASKING TAPE



ALUMINUM FOIL TAPE



ALUMINUM / CLOTH LAMINATED TAPE



GENERAL PURPOSE ALUMINUM FOIL TAPE



FINE LINE MASKING TAPE



PREMIUM FINE LINE MASKING TAPE



ALUMINUM FOIL / GLASS CLOTH



VINYL PROTECTION TAPE



INTERLINED VINYL PROTECTION TAPE



HIGH TEMPERATURE ALL-PURPOSE MASKING TAPE



HIGH TEMPERATURE CREPE PAPER MASKING TAPE



MEDIUM TEMPERATURE PAINT MASKING TAPE



PAPER MASKING TAPE

**SPECIALTY WINDOW MASKING**



ALUMINUM FOIL TAPE



ALUMINUM / CLOTH LAMINATED TAPE



PREMIUM FINE LINE MASKING TAPE

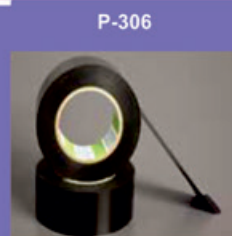
**ANTI-CORROSION**



POLYURETHANE MOISTURE BARRIER TAPE



AEROSEAL® ANTI-CORROSION TAPE



VINYL PROTECTION TAPE



INTERLINED VINYL PROTECTION TAPE

**COMPOSITE BONDING**



PTFE FILM TAPE



7.4 MIL DOUBLE COATED SPLICING & BONDING TAPE



4.7 MIL HIGH TEMPERATURE SILICONE FLASH MASKING TAPE



2.4 MIL HIGH TEMPERATURE SILICONE FLASH MASKING TAPE



ALUMINUM FOIL TAPE



2 MIL PTFE FILM TAPE



4 MIL PTFE COATED GLASS CLOTH TAPE



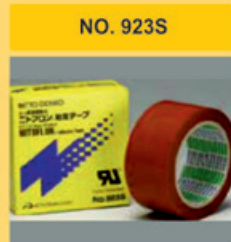
HIGH TEMPERATURE ALL-PURPOSE MASKING TAPE



HIGH TEMPERATURE CREPE PAPER MASKING TAPE



MEDIUM TEMPERATURE PAINT MASKING TAPE



NITOFLOX ADHESIVE TAPE



CARGO PIT SEAM TAPE

**THERMAL SPRAY MASKING**



7.5 MIL DOUBLE COATED TAPE FOR HVOF SPRAY



6.8 MIL ALUMINUM FOIL / GLASS CLOTH FOR PLASMA SPRAY



7.5 MIL GLASS CLOTH FOR PLASMA SPRAY



10 MIL GLASS CLOTH FOR PLASMA SPRAY

**SURFACE PROTECTION**



TRANSPARENT PE TAPE



SURFACE PROTECTIVE MATERIAL FOR STAINLESS STEEL



SURFACE PROTECTIVE FILM FOR HEAVY PROCESSING



EXTENDED OUTDOOR PROTECTION OF PAINTED SURFACES



SURFACE PROTECTIVE MATERIAL FOR EXTREMELY ROUGH SURFACES



RIBBON DOPE THREAD SEALANT



1 OZ. COPPER FOIL CONDUCTIVE

**SHIELDING**



ALUMINUM FOIL TAPE



ALUMINUM FOIL / GLASS CLOTH



ALUMINUM FOIL / CONDUCTIVE ADHESIVE



1 OZ. COPPER FOIL TAPE



**ACC**  
**SUPPLY SOURCE**  
**FOR AIRCRAFT CONSUMABLE MATERIALS**

**When it comes to Aircraft  
 ACC is Specialized in Specialty Chemical**



**ExxonMobil**  
*Aviation*



## ENGINE OILS-CROSS REFERENCE

Products				Specification	Joint Service Designation	Nato Code	DESCRIPTION
Nyco	Shell	EASTMAN	EXXON				
TURBONYCOIL 3516	Aeroshell Turbine Oil 2	-	Mobil Avrex M Turbo 201/1010	UK. - U.S. MIL-PRF-6081D, Gr.1010 French AIR 3516/A	OM-10	O-133	Petroleum lubricating oil, gas turbine
TURBONYCOIL 280 P	Aeroshell Turbine Oil 3	-	-	UK. DEF STAN 91-99 U.S. - French AIR 3515/B	OM-11	O-135	
TURBONYCOIL 3512	Aeroshell Turbine Oil 9	-	-	UK. DEF STAN 91-97 U.S. - French AIR 3512/A	OM-71	O-138	
TURBONYCOIL 310	Aeroshell Turbine Oil 9B	-	-	UK. DEF STAN 91-97, Gr.2479/1 U.S. - French 7808	OEP-71	O-136	
TURBONYCOIL 160	Aeroshell Turbine Oil 308	-	-	UK. MIL-PRF-7908L, Gr.3 U.S. - French -	OX-9	O-148	Synthetic lubricating oil, 3 cSt, gas turbine
-	Aeroshell Turbine oil 390	EASTMAN Turbo Oil 2389	Mobil Avrex S Turbo 256	UK. DEF STAN 91-94 U.S. - French -	OX-7	-	
TURBONYCOIL 600	Aeroshell Turbine oil 500	-	-	UK. DEF STAN 91-101 U.S. MIL-PRF-23699G, Gr.STD French DCSEA 299/A	OX-27	O-156	Synthetic lubricating oil, 5 cSt, gas turbine
TURBONYCOIL 601	Aeroshell Turbine oil 560	EASTMAN Turbo Oil 2380	Mobil Jet Oil II	UK. DEF STAN 91-101 U.S. MIL-PRF-23699 Grade HTS French DCSEA 299/A	OX-27	O-154	Synthetic lubricating oil, 5 cSt, gas turbine, corrosion inhibited
TURBONYCOIL 699	Aeroshell Turbine oil 555 (5cst)	EASTMAN Turbo Oil 2197	Mobil Jet Oil 254	UK. DEF STAN 91-100 U.S. DOD-PRF-85734A French -	OX-26	O-160	Synthetic lubricating oil, 5 cSt, gas turbine
TURBONYCOIL 35M	Aeroshell Turbine oil 750	EASTMAN Turbo Oil 25	-	UK. DEF STAN 91-98 U.S. - French Air 3517A	OX-38	O-149	Synthetic lubricating oil, 7.5 cSt, gas turbine
TURBONYCOIL 400	-	EASTMAN Turbo Oil 247	-	UK. - U.S. - French -	-	O-163	Synthetic lubricating oil, 4 cSt, gas turbine
TURBONYCOIL 13B	-	-	-	UK. - U.S. MIL-PRF-7808 L, Gr.4 French AIR 3514/A Iss.2	-	O-150	Synthetic lubricating oil, 3 cSt, gas turbine
-	Aeroshell Oil 65	-	-	UK. - U.S. - French -	-	O-113	Synthetic lubricating for aircraft piston engines
-	Aeroshell Oil 80	-	-	UK. DERD.2472 A/O U.S. MIL-PRF-6082, Gr.1065 French -	OM-170	-	Aircraft Piston Engine oil
-	Aeroshell Oil 100	-	-	UK. DERD.2472 B/O U.S. - French -	OM-270	O-117	
-	Shell Aviation Oil	-	-	UK. DERD.2472 B/O U.S. MIL-L-6082D, Gr.1100 French -	OM-270	O-117	
-	Aeroshell Oil W.80	-	-	UK. DERD.2450 Gr.D-65 U.S. - French -	OMD-160	O-123	Lubricating oil for aircraft piston engines, ashless dispersant type
-	Aeroshell Oil W.100	-	-	UK. DERD.2450 GR.D -80 U.S. MIL-L-22851 C, TYPE IIIB French -	OMD-250	O-125	
-	Aeroshell Oil W.120	-	-	UK. DERD.2450 Gr. D -100 U.S. - French -	OMD-370	O-128	








# GREASES

## Oils, Lubricants & Greases



Products			GREASES - CROSS REFERENCE					
 NYCO	 Shell	 ExxonMobil Aviation	Specification			Joint Service Designation	Nato Code	DESCRIPTION
NYCO GREASE GN HC	AEROSHELL AVIATION GREASE S.7108	-	UK.	DEF STAN 91-6	XG-235	G-363	Synthetic grease, hydrocarbon resistant, plug valve	
			U.S.	MIL-G-6032, TYPE I				
			French	DCSEA 363/B				
NYCO GREASE GN 05	AEROSHELL GREASE 5	-	UK.	-	-	G-359	Petroleum based, -18°C to +149°C	
			U.S.	MIL-G-3445C				
			French	AIR 4205/B				
NYCO GREASE GN 06	AEROSHELL GREASE 8	-	UK.	DEF STAN 91-54	XG-285	G-355	Petroleum graphited grease, -40°C to +121°C	
			U.S.	MIL-G-7187				
			French	DCSEA 355/A (AIR 4206 B)				
NYCO GREASE GN 07	AEROSHELL GREASE 16	-	UK.	-	-	G-361	Synthetic based grease, extreme pressure, -40°C to +177°C	
			U.S.	MIL-G-25760A				
			French	DCSEA 361/B (AIR 4207/A)				
NYCO GREASE GN 10	AEROSHELL GREASE 7	Mobilgrease 33	UK.	DEF STAN 91-53	XG-287	G-354	Synthetic ester based grease, -73°C to +121°C	
			U.S.	MIL-PRF-23827 C				
			French	DCSEA 353/A (AIR 4210/B)				
NYCO GREASE GN 15	AEROSHELL GREASE 6	-	UK.	DEF STAN 91-12	XG-271	G-382	Petroleum based grease, general purpose, -40°C to +121°C	
			U.S.	MIL-G-7711 A				
			French	DCSEA 382/A (AIR 4215/B)				
NYCO GREASE GN 17	AEROSHELL GREASE 17	-	UK.	DEF STAN 91-57	XG-276	G-353	Synthetic ester based grease, molybdenum disulphide, -73°C to +121°C	
			U.S.	MIL-G-21164D				
			French	DCSEA 353/A (AIR 4217/A)				
NYCO GREASE GN 22	AEROSHELL GREASE 22	Mobilgrease 28	UK.	DEF STAN 91-52	XG-293	G-395	Synthetic hydrocarbon based grease, -54°C to +177°C	
			U.S.	MIL-PRF-81322D				
			French	DCSEA 395/B (AIR 4222)				
NYCO GREASE GN 46	AEROSHELL GREASE 14	-	UK.	DEF STAN 91-51	XG-284	G-366	Petroleum based grease, anti-fretting	
			U.S.	MIL-G-25537 C				
			French	-				
NYCO GREASE GN GA 47	-	-	UK.	DEF STAN 80-80	ZX-13	S-720	Anti-seize compound, graphited petrolatum	
			U.S.	AMS 2518 A				
			French	AIR 4247/A				
NYCO 65 VASELINE	-	-	UK.	DEF STAN 91-38	PX-7	S-743	Technical petrolatum	
			U.S.	VV-P-236 A				
			French	AIR 3565/A				
NYCO GREASE GN 67	AEROSHELL AVIATION GREASE S.4768	-	UK.	DEF STAN 80-81	ZX-38	S-722	Anti-seize compound, molybdenum disulphide	
			U.S.	-				
			French	-				
NYCO GREASE GN 68	-	-	UK.	DEF STAN 91-56	XG-315	G-394	Silicone based grease, pneumatic system	
			U.S.	-				
			French	-				
NYCO GREASE GN 69	-	-	UK.	DEF STAN 68-69	XG-250	S-736	Silicone based grease, electrical insulating	
			U.S.	AS 8660				
			French	-				
NYCO GREASE GN 74	-	-	UK.	DEF STAN 91-18	XG-264	G-412	Graphited grease	
			U.S.	VV-G-671 F				
			French	-				
NYCO GREASE GN 142	-	-	UK.	-	-	G-414	Petroleum based grease, automotive and weapon	
			U.S.	-				
			French	DCSEA 301/A				
NYCO GREASE GN 145	-	-	UK.	DEF STAN 91-27	XG-279	G-403	General automotive and artillery (GAA) grease	
			U.S.	MIL-PRF -10924 G				
			French	-				
NYCO GREASE GN 155	-	-	UK.	DEF STAN 91-34	XG-286.	G-460	Heavy duty Naval Grease, sea water resistant: STM(310/A)	
			U.S.	-				
			French	-				
NYCO GREASE GN 4343	AEROSHELL GREASE 43C	-	UK.	-	XG-269	G-392	Synthetic based grease, aircraft pneumatic system	
			U.S.	MIL-G-4343C				
			French	SAE AMS -G-4343				
NYCO GREASE GN 25013	AEROSHELL GREASE 15 A	-	UK.	DEF STAN 91-55	XG-300	G-372	Synthetic based grease, ball & roller bearing -73°C to +232°C	
			U.S.	MIL-G-25013E				
			French	-				



## LUBRICATING OILS- CROSS REFERENCE



Products		Specification	Joint Service Designation	Nato Code	DESCRIPTION
Nyco	Shell				
NYCOLUBE 11B	AEROSHELL FLUID 12	UK. DEF STAN 91-49 U.S. MIL-PRF-6085 D French AIR 3511/A	OX-14	O-147	Synthetic lubricating oil, instrument
NYCOLUBE 30	AEROSHELL FLUID 18	UK. DEF STAN 91-79 U.S. MIL-PRF-32033 (VV-L-800) French -	OX-18	O-190	Petroleum lubricating oil
NYCOLUBE 60	-	UK. DEF STAN 8034 U.S. MIL-PRF-21260E.GR 30 French -	PX-4	C-642	Petroleum lubricating oil, preservative
NYCOLUBE 64	AEROSHELL FLUID 5L-A	UK. DEF STAN 91-112 U.S. MIL-PRF-6068 E, Gr.L French -	OEP-30	O-153	Petroleum lubricating oil, aircraft gear, light
NYCOLUBE 74	-	UK. - U.S. A-A-59137 GR. B French -	-	-	Semi-synthetic lubricating oil
NYCOLUBE109	-	UK. - U.S. A-A-59137 GR. A French -	-	-	Semi-synthetic lubricating oil
NYCOLUBE 127	-	UK. - U.S. MIL-PRF- 63460 D French -	-	S-758	Lubricant cleaner preservative weapon (CLP), and BT-PS-661 A
NYCOLUBE 210	-	UK. - U.S. - French DCSEA 242/B	-	O-1177	Synthetic 2-stroke biodegradable oil
NYCOLUBE 227	-	UK. - U.S. - French DCSEA 501	-	S-758	Lubricant, cleaner and preservative oil for weapon
NYCOLUBE 227	-	UK. - U.S. - French DCSEA 502/A	-	S-761	General purpose oil, weapon, German specification TL 9150-0078 Iss.5
NYCOLUBE 269	-	UK. - U.S. - French DCSEA 215/B	-	O-1179	High performance synthetic engine oil SAE 5W40
NYCOLUBE 3525	AEROSHELL FLUID 5M-A	UK. DEF STAN 91-112 U.S. MIL-PRF- 6068E, Gr.M French DCSEA 255/A	OEP-70	O-155	Aircraft gear oil, medium
NYCOLUBE 7870	AEROSHELL FLUID 3	UK. DEF STAN 91-47 U.S. MIL-PRF- 7870 C French -	OM-12	O-142	Petroleum lubricating oil, instrument
NYCOLUBE 25681	-	UK. DOD-L-25681 D U.S. - French -	OX-70	S-1736	Silicone lubricating oil, molybdenum disulphide



## SPECIALITY PRODUCTS- CROSS REFERENCE

Products								
		Specification			Joint Service Designation	Nato Code	DESCRIPTION	
NYCOPROTEC 03	AEROSHELL FLUID 2XN	UK.	DTD.900/4913A		ZX-21	C-608	Petroleum corrosion preventive oil concentrate	
		U.S.	MIL-C-6529 C,TYPE I					
		French	AIR 1503/B type B					
NYCOPROTEC 04	-	UK.	-		-	C-610	Petroleum corrosion preventive oil	
		U.S.	MIL-C-6529 C,Amd.2 Type 3					
		French	DCSEA 510/A					
NYCOPROTEC 05	-	UK.	-		-	C-609	Petroleum corrosion preventive oil	
		U.S.	MIL-C-6529 C, Amd.2 Type 2					
		French	AIR 1503/B Type B					
NYCOPROTEC 06	AEROSHELL FLUID 9	UK.	DEF STAN 91-40		PX-27	C-615	Petroleum corrosion preventive oil	
		U.S.	-					
		French	AIR 1503/B Iss.3					
NYCOPROTEC12	-	UK.	-		-	O-192	Petroleum lubricating oil,preservative	
		U.S.	MIL-PRF- 3150 D					
		French	DCSEA 231 Iss.2					
NYCOPROTEC 8131	-	UK.	-		-	C-632	Corrosion preventive coumpound	
		U.S.	MIL-PRF- 6173 E, GR 1					
		French	-					
NYCOPROTEC 132	AEROSHELL COMPOUND 02	UK.	-		-	C-620	Corrosion preventive coumpound	
		U.S.	MIL-PRF- 16173 E, GR2					
		French	-					
NYCOPROTEC 8188	SHELL PRODUCT MIL-C-8188C	UK.	-		-	C-638	Corrosion preventive coumpound	
		U.S.	MIL-PRF- 8188 D					
		French	-					
NYCO 4223	AEROSHELL COMPOUND 09	UK.	DEF STAN 68-62		ZX-35	S-740	Molybdenum disulphide powder, lubricating	
		U.S.	AMS-M- 7866 D					
		French	AIR 4223 Iss.1					
NYCO 4224	-	UK.	-		-	S-732	Graphite powder, lubricating grade	
		U.S.	SS-G-659 A					
		French	AIR 4224 Iss.1					
NYCO 8243	SHELL COMPOUND S7632	UK.	-		-	S-742	De-icing fluid, aircraft surface ground use	
		U.S.	SAE AMS 1424/B					
		French	-					
NYCOSOL 4	AEROSHELL COMPOUND 06A	UK.	BS 1595/1986, PART I		AL-11	S-737	Technical isopropanol	
		U.S.	TT-I-735 A Amd.3 GR B					
		French	AIR 3660/A Iss.2					
NYCOSOL 12	SHELL METHANOL MIXTURE 44/55/0	UK.	DEF STAN 68-253		AL-28	S-1744	Thrust augmentation fluid	
		U.S.	-					
		French	AIR 3651/A Iss.2, (44/56)					
NYCOSOL 13	-	UK.	DEF STAN 68-252		AL-41	S-1745	Icing inhibitor additive, fuel system, high flash point	
		U.S.	MIL-DTL- 85470 B					
		French	DCSEA 745/A					
NYCOSOL 17 Type 2	-	UK.	-		-	-	Calibrating fluid	
		U.S.	MIL-PRF- 7024 E, Type II					
		French	-					
NYCOSOL 18	-	UK.	-		-	S-753	Degreasing solvant for maintenance	
		U.S.	MIL-PRF -680B, Type II					
		French	-					
NYCOSOL 131	-	UK.	-		-	XS-1745	Fuel icing inhibitor, high flash point, with anti-corrosion/lubricating additives	
		U.S.	-					
		French	DCSEA 745/A					
NYCODIEL	-	UK.	-		-	S-1748	Synthetic dielectric coolant fluid	
		U.S.	MIL-PRF- 87252 C					
		French	-					

## HYDRAULIC FLUIDS CROSS REFERENCE



Products			Specification	Joint Service Designation	Nato Code	DESCRIPTION
Nyco	Shell	ExxonMobil Aviation				
HYDRAUNYCOIL FH 2	AEROSHELL FLUID 31	-	UK. - U.S. MIL-PRF- 83282 D, AMD 1 French DCSEA 437/B	OX-19	H-537	Synthetic hydrocarbon fluid, fire resistant
HYDRAUNYCOIL FH 3	AEROSHELL FLUID 61, TY I	-	UK. - U.S. MIL-PRF- 46170 D, TY I French -	-	H-544	Synthetic hydrocarbon fluid, fire resistant, anti-rust
HYDRAUNYCOIL FH 5	AEROSHELL FLUID 4	-	UK. DEF STAN 91-48 U.S. - French DCSEA 415/A	OM-18	H-520	Petroleum based fluid
HYDRAUNYCOIL FH 6	AEROSHELL FLUID 71	-	UK. DEF STAN 80-142 U.S. MIL-PRF-6083 F French DCSEA 535/A	PX-26	C-635	Petroleum corrosion preventive fluid, superclean, hydraulic system
HYDRAUNYCOIL FH 5AW	-	-	UK. - U.S. - French -	-	-	Shock strut fluid - Boeing BMS 3-32 B Type II
HYDRAUNYCOIL FH 6WA	-	-	UK. - U.S. - French -	-	-	Shock strut fluid - Boeing BMS 3-32 B Type I
HYDRAUNYCOIL FH 13	-	-	UK. - U.S. MIL-PRF-17672 D,Amd,3 French -	-	H-537	Petroleum hydraulic fluid, Navy vessels, propeller pitch control, rotary air compressor
HYDRAUNYCOIL FH 14	-	-	UK. - U.S. - French -	-	H-540	Petroleum, inhibited fluid (German spec. TL 9150-0035 Iss.5)
HYDRAUNYCOIL FH 18	-	-	UK. - U.S. MIL-S -81087 C, Amd.1 French -	-	H-536	Halogenated silicone hydraulic fluid, precision instrument, electrical and mechanical
HYDRAUNYCOIL FH 19	-	-	UK. - U.S. MIL-DTL-17111 D French -	-	H-575	Petroleum based fluid, ordnance
HYDRAUNYCOIL FH 23	-	-	UK. - U.S. MIL-H-19457 D French STM 7320 Iss. 1, Amd. 2	-	H-580	Phosphite ester based fluid, fire resistant
HYDRAUNYCOIL FH 26	-	-	UK. - U.S. - French -	-	H-576	Mineral hydraulic fluid, machine navy tools, gunnery, radar equipments as per Belgium specification BN-PH-372 D
HYDRAUNYCOIL FH 42	-	-	UK. - U.S. MIL-PRF-87257 B French -	-	H-538	Synthetic fluid, fire resistant, low temperature
HYDRAUNYCOIL FH 46	-	-	UK. - U.S. - French -	-	-	Petroleum hydraulic fluid, landing gear, SAAB STD 161216
HYDRAUNYCOIL FH 51	AEROSHELL FLUID 41	Mobil Aero HF	UK. DEF STAN 91-48 U.S. MIL-PRF-5606 H French DCSEA 415/A	OM-15	H-515	Petroleum based fluid, superclean
-	AEROSHELL FLUID 61, TY II	-	UK. - U.S. MIL-PRF-46170 D, TY II French -	-	-	Preservative grade synthetic hydrocarbon hydraulic fluid dyed red for aerospace





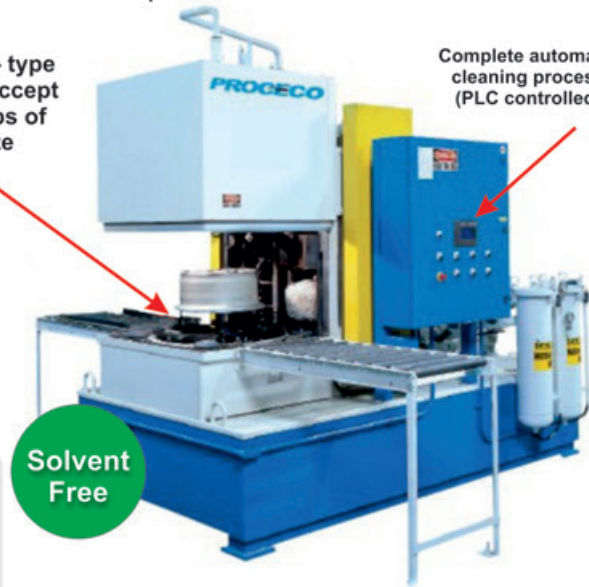
# Aircraft Wheel Cleaner & Paint Shop Tools

Clean up to 30 aircraft wheel hubs in 8-hour shift

Universal - type fixture to accept wheel hubs of any size

Complete automatic cleaning process (PLC controlled)

Clean up to 30 complete wheels in 8-hour shift.  
ACC offers Equipment +chemical  
i.e ACC 2230



Solvent Free



PROCECO-TYPHOON AWW WHEEL CLEANER

Automatically cleans wheels used on commercial and military aircraft. It removes oil, grease, rubber and dirt accumulated on these parts. Automated section of process and amount of detergent depends on the degree of contamination.

## ACC PAINT SHAKER:

ACC has developed its own Paint Shaker Machine

- Compact design
- More space saving
- Promoting shop image
- Optional moveable loading plate
- Easier to put paint cans in and out
- Modularized design
- More convenient maintenance
- Higher stability
- Intelligent pressure adjustment, detecting
- Different can size



## ACC AIRLESS STRIPPING PUMP

### Application definition:

Airless sprayer of all kind of paint removers like ACC 1120.

The pump system is specially configured for this application and is also suitable for all the other aerospace paint strippers. There are several configuration possible!



Proceco Designs and Manufactures a wide range of automated aqueous parts cleaning and surface treatment systems for MRO and manufacturing of aircraft components. Proceco system obtain high cleanliness levels, increased productivity, and reduced cost per part.

Proceco technology is environmentally friendly. Using a heated water-based cleaning solution; Proceco's systems remove oils, grease, chips, dirt, coolants and other contaminants from the parts prior to inspection, repair, NDT, and final assembly. In addition to producing no VOC emissions, the cleaning solution is filtered and recirculated to preserve energy and minimize water consumption.

A complete selection of system configurations such as immersion cleaning, in-line tunnel, spray-immersion, and turntable spray cabinet are available to degrease, clean, rinse, dry and treat surfaces of virtually any part. Systems are available in batch or continuous processes and can be customized by adding pre-engineered options to meet your exact requirements.



Ultrasonic immersion degreasing

Proceco Process Capabilities		Cleaning / Degreasing	Carbon Removal	Non Destructive Testing	Surface Treatment	Deburring
				FPI		
	Engine Components	●	●	●	●	●
	Wheels / Brakes / Bearings	●	●	●		
	Landing Gear	●		●	●	
	Tubes / Fittings / Hoses	●				
	Electric Motors / Actuators	●				
	Propellers	●			●	
	Sheet Metal Components / Wing Skins	●			●	●

**System Configurations:**

- Cleaning by immersion
- In-line conveyor
- Turntable spray cabinet
- Reciprocating spray
- Spray-immersion
- Monorail
- Custom design

**Typical Options:**

- Ultrasonics
- Mechanical agitation
- Water conditioning
- Automation
- Solution filtration
- Oil removal
- Sludge removal
- Waste water treatment

At Proceco, you will find the system you need for your component MRO and manufacturing processes.





**Ultrasonic immersion cleaning**  
 • Jet engine overhaul



**Aircraft wheel washer**  
 • Wheel hub maintenance



**Reciprocating nozzle spray cabinet**  
 • Landing gear manufacturing and overhaul



**Spray-immersion cleaning**  
 • Piston engine parts overhaul



**Turntable spray cabinet**  
 • Bearing maintenance



**Automatic FPI and degreasing tank line**  
 • Turbine engine parts manufacturing and overhaul



**Turntable spray cabinet**  
 • Jet engine components



**Turntable spray cabinet and vacuum dryer**  
 • Electric motor overhaul



**Automatic immersion cleaning and anodizing system**  
 • C130 propeller overhaul



**In-line conveyor spray washer**  
 • Jet engine parts



**Tube flushing and cleaning**  
 • Hydraulic, oxygen, fuel tubing



**Robotic, high-pressure water jet deburring system**  
 • Precision components

Designed to clean up to 30 aircraft wheel hubs of any size in an 8-hour shift, the Proceco Typhoon® -AWW is the proven choice of commercial airliners worldwide.

The Typhoon® -AWW aircraft wheel cleaning system uses the latest aqueous cleaning technology to remove grease, rubber residues, dirt and brake dust from wheel hubs prior to inspection or overhaul.



System shown with automatic load and unload

## Aircraft Wheel Cleaning System

### Standard Features

- Stainless-steel 304 construction
- Three(3) universal-type wheel hub fixtures
- Vertical sliding cabinet hood with safety latch
- Recirculated wash
- Freshwater rinse
- Plant air blow-off
- Two chip baskets accessible by a hinged tank cover
- Rotating polypropylene brush
- Programmable logic controller (PLC) with preprogrammed cleaning process
- Stainless-steel disc-type oil skimmer
- Exhaust blower
- All moving parts are covered with safety guards
- Automatic solution level control
- Low solution level heating system protection
- Electric solution heating
- Fully insulated solution tank and hood
- Low energy consumption design resulting in lower heating requirements
- Vertical sealless pump
- Maximum noise level of 80 dB(A)
- Finish: two-component epoxy paint
- Easy access to mechanical components

Clean up to 30 aircraft wheel hubs in an 8-hour shift



Specifications	Imperial	Metric
Production (wheels per 8-hour shift)	30	30
Turntable diameter	32"	810 mm
Maximum work height	20"	510 mm
Loading height	40"	1016 mm
Maximum workpiece weight	150 lb	70 kg
Wash stage	Tank capacity	470 USgal / 1780 litres
	Pump capacity @ 60 Hz	200 USgal/min @175 psi / 760 litres/min@12 bar
	Pump motor	50 hp / 37 kW
Recirculating rinse stage (Optional)	Tank capacity	120 USgal / 455 litres
	Pump capacity @ 60 Hz	115 USgal/min @60 psi / 435 litres/min @4 bar
	Pump motor	7½ hp / 5,5 kW
Slurry blast & Rinse stage (Optional)	Tank capacity	120 USgal / 455 litres
	Pump capacity @ 60 Hz	245 USgal/min @60 psi / 930 l/min @4,1 bar
	Pump motor	15 hp / 11 kW



### Options

- Recirculated rinse
- Automatic load and unload system
- Special parts basket
- Recirculated slurry blast and rinse stage
- Stainless-steel pump, spray manifolds, exhaust blower and brush core
- Marine door on tank
- Power supply other than standard 460V



## Reduce Your Wastewater Stream Up To 98% and Recuperate Process Water

The Éco-Smart® is a Mechanical Vapor Recompression (MVR) evaporator engineered to separate water from waste through distillation. The system reclaims up to 98% of your waste water as clean water that can be re-used in your industrial process. The remaining residual waste is collected in a concentrate for disposal. As a result, the Éco-Smart® substantially reduces your waste water disposal costs and minimizes your environmental footprint.



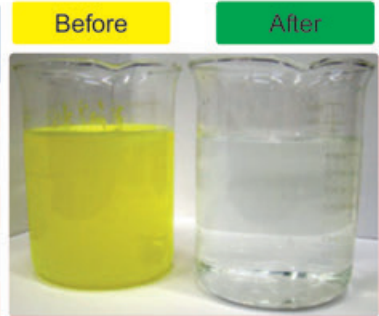
Based on avg. US energy cost: 0.07\$/kWh

- Reduce your disposal costs
- Recycle water
- Operate a closed-Loop
- Low energy consumption
- Cost savings & cost-effective solution

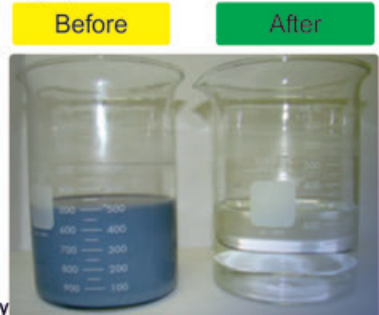
APPLICATIONS	FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>■ Surface Treatment Rinse Water</li> <li>■ FPI Rinse Water</li> <li>■ Parts Washing Solution</li> <li>■ Die Casting Wastewater</li> <li>■ Oily Emulsions</li> <li>■ Metalworking Fluids</li> <li>■ Concentrate from Membrane</li> <li>■ Filtration</li> </ul>	<ul style="list-style-type: none"> <li>■ Uses No Electric, Gas, or Steam heat Sources</li> <li>■ Efficient Vapor Compression Technology</li> <li>■ Few Moving Parts – No Pumps</li> <li>■ No Membranes to Replace</li> <li>■ PLC Controlled – Runs Unattended</li> <li>■ Automatic Periodic Blow-Down</li> <li>■ Compact, Portable, and Easy to Install</li> </ul>	<ul style="list-style-type: none"> <li>■ Low Energy Consumption – 0.25kWh/gal</li> <li>■ Low Operating Costs</li> <li>■ Low Maintenance</li> <li>■ High Water Recovery Rate – Up to 98%</li> <li>■ Closed-Loop System – No Air Permits</li> <li>■ Waste Concentrated in Sludge</li> <li>■ Concentration Up to 400,000 mg/L</li> </ul>

Models	*Daily Production (USGal/Day)	Motor Power (HP)	Dimensions LxWxH )Inches(	Weight (Lbs)
Éco-Smart® ES 400	400	10	94 x 52 x 88	2000
Éco-Smart® ES 800	800	20	98 x 60 x 100	3000
Éco-Smart® ES 1500	1500	30	110 x 60 x 110	4000
Éco-Smart® ES 3200	3200	75	150 x 72 x 145	8000
Éco-Smart® ES 6000	6000	125	182 x 74 x 130	13000
Éco-Smart® ES 11500	11500	200	200 x 84 x 130	16000

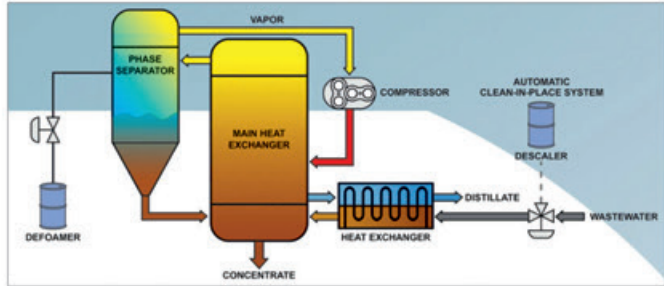
\*Based on 22/24 hours System specifications are subject to change without notice.



Dye penetrant rinse water



Mold releasing agent



Mechanical Vapor Recompression (MVR) Evaporator



The Éco-Smart's process is fully automatic and can be continuously monitored on the machine's touchscreen interface.



Proceco's ADT tank lines are multi-stage immersion systems designed for wet dip processes used for parts cleaning, metal surface treatment, and flaw detection. Based on a common design platform, each system is custom engineered for a specific process and workpieces.

Degreasing, metal etching, anodizing and phosphating are just some of the processes handled by Proceco's ADT tank lines across the aviation, automotive and general manufacturing industries. Proceco provides a complete solutions approach from initial concept to turnkey installation.

Proceco systems offer automation, process control, dynamic scheduling, traceability, as well as a variety of fluid management and part handling options to meet your exact needs. This makes Proceco's ADT tank lines completely flexible; ideal for processing components in manufacturing as well as in maintenance, repair and overhaul.

Proceco's engineering team will evaluate your application and production requirements in order to design the best system to fit your needs. Proceco integrate the necessary technologies to enhance performance, improve efficiency, and extend solution life. Proceco has extensive experience in engineering innovative systems for cleaning and surface treatment applications that use aqueous-based solutions. There are many advantages to choosing Proceco systems:

- Custom-designed to meet your exact requirements
- Process know-how
- Integration expertise
- ISO 9001:2000 quality management system
- Turnkey installations
- Fast lead time and project management

**Energy Efficient Design**

Proceco believes in energy efficiency. When sizing pumps, ventilation, and water utilization, we pay specific attention to all the elements that have an impact on energy consumption.

We offer thick thermal insulation for all our heated processes, and tank covers to preserve energy. Our process control system is designed to conserve energy by avoiding over-heating of tanks, and by opening covers only when necessary for the shortest time possible. Covers can also be interlocked with ventilation to reduce heat losses.

Proceco also offers closed-loop cascading rinses, solution reclaim and filtration to reduce water usage.

**System Features**

- Process flexibility
- Stainless-steel and plastic / FRP tanks to suit solution chemistry
- Rugged construction
- Service connections and equipment located at rear forease of maintenance
- Automated and semi-automated processes
- Automatic solution level control
- Digital temperature controls
- Heavy soil, oil and grease removal capabilities
- Ergonomic and easy to operate
- OSHA compliant safety guarding
- Factory testing

**ADT-Tank Lines**



5-stage automated immersion line with cleaning and paint stripping of armored vehicle engine components



6-stage automated ultrasonic immersion degreasing line featuring automatic basket loading/unloading and convection drying.

**Applications**

**Surface Treatment**

- Anodizing
- Degreasing
- Decontamination
- Deoxidizing
- Desmutting
- Etching
- FPI
- Passivation
- Pickling
- Phosphating
- Rust-inhibiting

**Cleaning**

- Degreasing
- Pre-cleaning
- Precision cleaning
- Rinsing

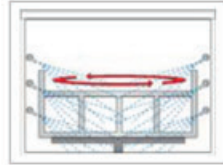


**Multi-Stage Design**

Based on your needs, pre-engineered processes are combined with automatic part transfer and process control to create your tailor-made multi-stage immersion line. Systems can include a wide range of processes such as:



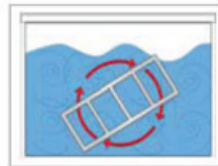
Air sparge agitation



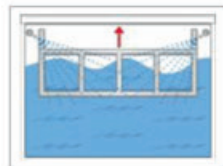
Rotation with spray



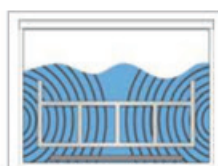
Convection drying



Rotation agitation



Immersion and spray

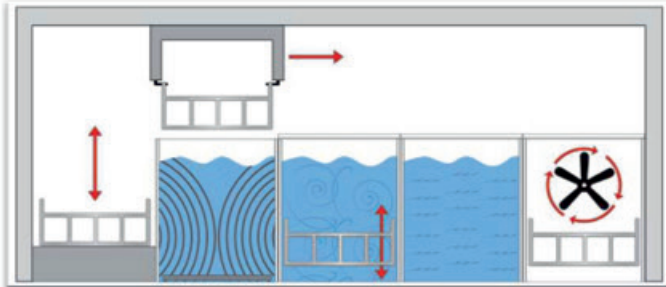


Ultrasonic

also:

- Pump/ eductor agitation
- Vertical oscillation

**Automatic Part Transfer**



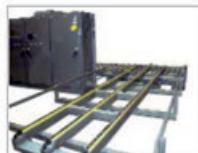
Fixtures or baskets are automatically transferred through the process based on pre-programmed recipes. Simple or dynamic scheduling can be added to maximize production efficiency. Proceco offers various transfer systems:



**Overhead hoists:** Located above the machine, supported by a dual-side, heavy-duty structural frame. Capacity up to 5,000 lbs.



**Cantilever hoists:** Located on the side of the machine and supported by a heavy-duty structural frame. Capacity up to 1,000 lbs.



**Automatic part loading / unloading:** Conveyors or other technologies can be added to increase productivity or for seamless integration into your production line.

**Process Control**

Our automation engineers are trained in Siemens, Allen Bradley or soft PLC to offer you complete process control as you need it.

**Systems overview**



to monitor process parameters, workpiece flow, and error messages.

**Detailed information**



about individual stations can be displayed for close process monitoring.

**Manual controls**



are available at each station for system flexibility and maintenance.

**Additional Options & Equipment**

A wide range of options and auxiliary equipment can be integrated with the system to enhance its capabilities and extend solution life:

- Electrical, steam or gas / hydronic heating systems
- Solution filtration (#1)
- Oil removal and sludge removal (#1)
- Water conditioning
- Waste water treatment (#2)
- Air handling
- Automated tank covers (#2)
- Safety enclosures
- Remote diagnostics
- Data collection
- Cooling
- Automatic dosing (#3)
- Manual touch-up tools (#3)
- Special part fixtures and racks
- Tank clean-out doors
- Operator platforms
- CE, UL, IEC compliant







4-stage automated ultrasonic immersion cleaning line featuring basket oscillation, convection drying, and RO water generation.

- Aircraft jet engine maintenance



7-stage automated immersion line featuring aluminum etching, desmutting, and anodizing with DI water generation.

- Aircraft propeller overhaul



10-stage manual immersion line featuring pump / eductor agitation, degreasing and heat scale removal.

- Aircraft jet engine maintenance



12-stage automated fluorescent penetrant inspection FPI and degreasing tank line

- Aircraft turbine engine parts manufacturing



7-stage automated immersion line featuring parts cleaning, phosphating, and drying stages in a fully enclosed system.

- Air-conditioning compressor manufacturing



7-stage automated immersion line featuring power spray cleaning, deoxidizing, and automatic loading / unloading.

- Large diesel cylinder head repair



# KIMTECH\* Aerospace Cloths

Understanding that while surface preparation and cleaning is a very small part of the whole aircraft & equipment manufacturing, repair and maintenance process, it is just as crucial and requires precise, tailored products.

## Aerospace Abrasive surface cloths

- Highly durable aerospace cloths specifically designed for abrasive surfaces.

## Heavy Duty Low Lint Cloths

- Advanced material for optimum linting and extractables control.

## General purpose and chemical application cloths

- An easy to implement lean cleaning solution that addresses waste reduction and productivity improvement around general wiping needs.
- More controlled dispensing and application of solvent for reduced waste and better overall performance versus traditional bucket/decanter systems and disposable pre-saturated options.

The following Kimberly-Clark Professional products have been tested by Boeing and been shown to be compliant with the updated specification BMS 15-5G:

- Aerospace General Purpose Cloths (U3866400)
- Aerospace Heavy Duty Cloths (U3866600)
- Aerospace Heavy Duty Low Lint Cloths (U3866800)
- Aerospace Chemical Application Cloths (U3866500)
- Aerospace Surface Cloths (U3866700)



production line.



- ☐, ☐, ☐ compliant



# WETTASK\* Wiping System

## Increasing worker safety from VOCs and minimising consumption and waste of chemicals



### FACT:

In industries such as Aerospace, Automotive or Metal Manufacturing, the inhalation of VOCs can cause chronic respiratory problems and fatigue. These contribute significantly towards the 350 million working days lost per year in Europe through occupational ill-health.\*

\* Source: OSHA Europa



### OUR SOLUTION:

We have worked alongside industrial manufacturers and have seen first hand the daily occupational health and safety challenges you face.

Our new WETTASK\* Wiping System addresses your needs of reducing worker exposure to solvents and optimising solvent consumption, increasing the safety and profitability of your facility.

A refillable, fully enclosed wiping system giving you greater control over solvent use and wiping costs. Upgraded opening system and inclusive visual management kit for more efficient working in a safer environment.



### YOUR BENEFITS:



#### HEALTH AND SAFETY

- Increased worker safety through limited exposure to dangerous solvents and fluids
- Reduced environmental footprint with less VOC emissions



#### PRODUCTIVITY

- Ready-to-use system saves considerable time and effort
- Greater flexibility through use of any preferred solvents / chemicals



#### PROFITABILITY

- Reduced solvent consumption by at least 20%
- Minimal waste disposal costs





# WETTASK\* DSX/DS Wipers



## Ideal for:

Hygiene-critical Healthcare environments, requiring optimal infection control:

- Resistance to mould and biological growth  
Chemically treated surface wipers, protecting patients in Acute and Primary Care zones
- Longer-lasting protection  
Leaves fluid on wiped surface, so disinfectant continues working
- An alternative to sprays  
Reducing wastage and giving better cost control

Our WETTASK\* System reduces solvent consumption by at least 20% compared to traditional rags and other open systems.

Just choose the KIMTECH\* Wipers that works best for your task, then add the chemical solution you already use. Add up to 2.5 litres of solution or until the wiper is wet enough for your application.

## Giving you greater control over solvent/disinfectant use and wiping costs

Here is a new concept in wiping systems. We have created a refillable, airtight wiping system. Giving you better chemical control and pre-moistened wipers specific to cleaning tasks in your sector. You simply add the solution of choice:

- Enhancing hygiene and safety standards  
Pre-moistened cloths helping you to control solvent and disinfectant costs
- A fully enclosed system  
To reduce cross contamination, chemical vapours and splashes, enhancing worker safety



## BOEING MATERIAL SPECIFICATION QUALIFIED PRODUCTS LIST **BMS 15-5G**

MATERIAL CLASSIFICATION	MANUFACTURER'S PRODUCT DESIGNATION FL 1	MANUFACTURER	QUALIFYING PRODUCT GROUP	DATE	
<b>CLASS A</b>	<b>Non-Woven, 43 percent polyester/ 57 percent wood pulp</b>	CERTEK®	Haines Wiping Products Ltd. Dawson Lane Barwell LE9 8BE United Kingdom	BR&T	03-APR-2014
	Non-Woven, 45 percent polyester/ 55 percent rayon	Purewipe® VP-100	American Fiber & Finishing No. 2188 Xinkai Rd. Pinghu Economic Development Zhe Jiang, China	BR&T	26-APR-2013
	Non-Woven, 45 percent polyester/ 55 percent wood pulp	DuPont Sontara® Style 8801	Sontara® Technologies 1002 Industrial Rd. Old Hickory, TN 37138	BCA	10-JAN-1998
		DuPont Sontara® AC Style K802	Sontara® Technologies	BCA	23-MAY-2000
		KIMTECH® P2 Aviation Wipers European Code: U3866800 Global Codes: 28643, 28644	Kimberly-Clark Professional No. 63 Anfeng Rd. Nanping City, Fujian Province China	BR&T	03-MAY-2014
	Non-Woven, 50 percent polyester/ 50 percent rayon	Purewipe® WP-100	American Fiber & Finishing Zhe Jiang, China	BR&T	26-APR-2013
		DuPont Sontara® Style 8426	Sontara® Technologies	BCA	22-SEP-1999
		KIMTECH® P3 Aviation Wipers Global Code: 28647	Kimberly-Clark Professional 1007 N. Market St. Wilmington, DE 19898	BR&T	03-APR-2014
	Non-Woven, 50 percent polyester/ 50 percent wood pulp	KIMTECH SCOTTPURE®	Kimberly-Clark Corp. 1400 Holcomb Bridge Rd. Roswell, GA 30078	BCA	22-SEP-1999
		DuPont Sontara® Style K868	Sontara® Technologies	BCA	08-MAR-2004
	Non-Woven, 100 percent polyester	DuPont Sontara® Style 8005	Sontara® Technologies	BCA	10-JAN-1998
	Non-Woven, 100 percent rayon	Chix Aerospace Wipers Case Code No. 8756 Fabric Code No. 3984	Chicopee, Inc. 1203 Chicopee Rd. Benson, NC 27504	BCA	13-MAR-1989
DuPont Sontara® Style 8642		Sontara® Technologies	BCA	22-SEP-1999	



## BOEING MATERIAL SPECIFICATION QUALIFIED PRODUCTS LIST **BMS 15-5G**

MATERIAL CLASSIFICATION	MANUFACTURER'S PRODUCT DESIGNATION FL 1	MANUFACTURER	QUALIFYING PRODUCT GROUP	DATE	
<b>CLASS A</b>	Non-Woven, 100 percent rayon	Purewipe® V-100	American Fiber & Finishing Zhe Jiang, China	BCA	02-MAR-2011
		Veraclean® Material Code No.140411	BBA Fiberweb 500 Chestnut St. Bethune, SC 29009	BCA	02-JUN-1992
		Veraclean® Plus+ Material Code No. 140130	BBA Fiberweb	BCA	13-JAN-1998
	Non-Woven, 15 percent polypropylene / 85 percent wood pulp	KIMTECH® C3 Aviation Wipers European Code: U3866500 Global Code: 28645	Kimberly-Clark Professional 3461 County Rd. 100 Corinth, MS 38834	BR&T	03-APR-2014
	Non-Woven, 20 percent polypropylene / 80 percent wood pulp	KIMTECH® C2 Aviation Wipers European Code: U3866400 Global Code: 28641	Kimberly-Clark Professional 746-1 Daekwang-Dong Kimcheon City Kyungsangbook-D Korea	BR&T	03-APR-2014
		KIMTECH® C4 Aviation Wipers European Code: U3866600 Global Code: 28642	Kimberly-Clark Professional Kyungsangbook-D Korea	BR&T	03-APR-2014
		WYPALL® X80 (Blue/White Colors)	Kimberly-Clark Professional Corinth, MS	BR&T	03-APR-2014
	Non-Woven, Cotton	BEMCOT A-100	ASAHIOZU Co., Ltd. 3294-1, Kushitsu-Cho, Nobeoka, Miyazaki, Japan	BCA	18-FEB-2009
			OZUTECHNO Co., Ltd., 1 - 15, Oroshi-Machi, Minumaku, Saitama, Saitama, Japan	BCA	18-FEB-2009
		BEMCOT A-200	ASAHIOZU Co., Ltd.	BCA	18-FEB-2009
			OZUTECHNO Co., Ltd.	BCA	18-FEB-2009
		Grade 142951	BBA Fiberweb	BH	06-OCT-1993
Swabs	Purewipe®	American Fiber & Finishing, Inc. C1, C2, and C3 Shengli Industrial Park Shengli Rd. Jingzhou Hubei, China	BCA	02-MAR-2011	
Woven, Cotton	Aerotex®	American Fiber & Finishing, Inc. 225 N. Depot St. Albemarle, NC 28001	BCA	26-MAR-2009	

Airbus Broughton – Wing Division

Aerospace OEM

## Disposal costs reduced by €83k.

### Problem

- ✦ Issues with cloths in wing production:
  - Poor quality cloths used for technical wiping
  - Cloths kept in bins away from point of use
  - Bulky to store and dispense
  - Disposal costs impact Airbus 2020 vision of reducing CO2 emissions and waste targets

### Countermeasure

- ✦ Use wipers that:
  - Offer users higher capacity.
  - Are available at point of use.
- ➡ WYPALL X80 Large Roll Cloth (lab approved)
- ➡ WYPALL X80 Folded Cloth

### Results

- ✦ €79,000 annual saving in disposal of cloths due to reduced wiper volumes and elimination of unusable wipers
- ✦ Inventory waste reduction of 520 pallets (10 full trucks) in/out of stores
  - ➡ €4,000 annual saving
- ✦ Motion waste reduced due to point of use availability
- ✦ €83,000 total annual saving

Airbus Bremen - Wing / Flap Production

Aerospace OEM

## Solvent consumption reduced by 25%

### Problem

- ✦ Issues with current rag solution in wing production:
  - High solvent consumption and only small solvent bottles not placed at point of use
  - Wiper too large for cleaning wings and flaps efficiently
  - No dispensing solution exists for rags

- ✦ Use wipers that:
  - right size for the tasks
  - appropriate to remove skydrol and other chemicals
  - available at point of use
  - decrease consumption of wipers and solvents

- ✦ Implement a LEAN orientated system that combines solvents and compatible wipers (1 bucket per cell + solvent dispenser + visual management)
  - ➡ WETTASK System
  - ➡ Precision Cloths

- ✦ Over-processing waste reduced by decreasing solvent consumption - 25% annual saving, achieving the EADS Vision 2020 targets
- ✦ Inventory waste and disposal costs reduced by replacing large format wipers
- ✦ Motion waste reduced due to point of use availability.

Hawker Beechcraft

Aerospace MRO

## Reduction of solvent consumption by 30%

### Problem

- ✦ Lack of standard for safety compliance
  - Solvent consumption high due to inefficient use of rags
  - Wipers are not antistatic: potential source of accidents due to flash risk
  - Eyewear not anti-mist: so workers are scratching lenses when wiping fog/mist of eyewear
  - Eyewear is uncomfortable, so users often wear nothing

### Countermeasure

- ✦ Use Wipers that:
  - reduce solvent consumption
  - reduce safety hazard due to antistatic base sheet.
- ➡ WETTASK Refillable Wiping System
- ✦ Use Eyewear that:
  - is anti-mist
  - damage resistant
  - offers increased comfort
- ➡ JACKSON SAFETY Nemesis VL Eyewear

### Results

- ✦ Over-processing waste reduction due to 30% less solvent consumption through using a controlled dispensing system
- ✦ Inventory waste reduction due to optimized Eyewear consumption.
- ✦ Improved safety compliance, due to installation of new visual management aids
- ✦ Wiping processes backed up by visual management



## Glove Legislation The Legal Responsibilities

When a glove is examined against a typical test standard, a performance level is normally assigned (between 0 and 5). Level 0 specifies that the glove is either untested or falls below the minimum performance level. A performance level 'X' signifies that the glove is not designed for the use covered by the corresponding test. Higher numbers indicate higher levels of performance.

### EN 420: 2003

(General Requirements for Protective Gloves)

- Glove Design and Construction
- Gloves should offer the greatest possible degree of protection in the foreseeable conditions of end use. If seams are included, the strength of these seams should not reduce the overall performance of the glove.

### Innocuousness

- Gloves should not cause any adverse harm to the end user
- Glove pH must be between 3.5 and 9.5
- Chromium (VI) content should be below detection (for gloves containing leather)
- Gloves made from natural rubber latex will be tested for extractable proteins according to EN 455-3

### Cleaning Instructions

- If care instructions are provided, glove performance shall not be diminished when the maximum number of recommended cleaning cycles is used.

### Sizing

- Gloves shorter in length than the required minimum will be marked 'Fit for Special Purpose'.

### Dexterity

- If required, performance to be graded (Level 0 - 5)

### Gloves in Contact with Foodstuffs

We offer you the guarantee of compatibility between foodstuffs and glove components and full compliance with the toughest European and national standards in terms of food contact and food hygiene.



### EN 388: 2003

(Protective Gloves Against Mechanical Risks)

#### Test

- A:** 6.1 Abrasion resistance (number of cycles)
- B:** 6.2 Blade cut resistance (index)
- C:** 6.3 Tear resistance (N)
- D:** 6.4 Puncture resistance (N)

Test	Level 1	Level 2	Level 3	Level 4	Level 5
A	100	500	2000	8000	-
B	1.2	2.5	5.0	10.0	20,0
C	10	25	50	75	-
D	20	60	100	150	-

The 'Mechanical Risks' pictogram is accompanied by a 4-digit code:

- (a) Abrasion resistance (0 to 4)
- (b) Blade cut resistance (0 to 5)
- (c) Tear resistance (0 to 4)
- (d) Puncture resistance (0 to 4)



abcd

The relevant performance levels below should be clearly identifiable on the product and primary packaging

### EN 407: 2004

Protective gloves against thermal risks (heat and/or fire)

Performance Level	Contact Temperature T <sub>c</sub> °C	Threshold time t <sub>t</sub> s
1	100	≥15
2	250	≥15
3	350	≥15
4	500	≥15

- (a) Burning Behaviour (1 to 4)
- (b) Contact Heat (1 to 4)
- (c) Convective Heat (1 to 4)
- (d) Radiant Heat (1 to 4)
- (e) Small splashes of molten metal (1 to 4)
- (f) Large Quantities of molten metal (1 to 4)



abcdef

### EN 374: 2003

(Protective Gloves Against Chemicals and Micro-organisms)

EN 374-2:2003



EN 374-3:2003





## G80 Chemical Resistant Gloves

### G80 Chemical Resistant Gloves Nitrile



Chemical protection against:

- Oils
- Greases
- Acids
- Caustic
- Solvents
- Nitrile formulation offering excellent chemical resistance and durability
- Contains no natural rubber latex, reducing the potential for Type 1 glove associated reactions
- Flock-lined for extra comfort and easy donning
- AQL 0.65 to provide superior protection, more productivity and efficiency
- High abrasion resistance
- The diamond embossed structure provides excellent grip

### G80 Chemical Resistant Gauntlets Nitrile



Chemical protection against:

- Oils
- Greases
- Acids
- Caustic
- Solvents
- 0.55mm thickness offers increased protection
- Longer length (compared to our G80 Nitrile Glove) to protect wrist and lower forearm (46 cm)
- Unlined, reducing the risk of lint contamination
- AQL 0.65 for pinholes to provide superior protection, more productivity and efficiency

### G80 Chemical Resistant Gloves Neoprene / Latex



NEW



Chemical protection against:

- Alcohol
- Bases
- Oils
- Acids
- Solvents
- Detergents
- Neoprene over Latex formulation to maximise protection and enhance flexibility and elasticity
- Anti-slip pattern with honeycomb structure to provide excellent grip in wet and dry conditions
- Palm strengthened by special dip for extra protection
- 0.70mm thickness to increase protection
- Anatomically shaped for increased comfort and dexterity
- Pure cotton flock lining to absorb perspiration
- Chlorinated for low extractable proteins and residual chemicals
- Straight cuff

## G60 Cut Resistant Gloves & Sleeves

### G60 Level 5 Cut Resistant Gloves PU Coated



- PU Coating offers excellent grip
- Patented engineered yarn provides exceptional protection against cuts and gashes
- Yarn transmits heat away, making glove breathable and comfortable
- Also available with grey coating to meet FOD requirements
- Extreme cut resistance (Level 5) combined with very good fit comfort and dexterity
- Conforms to EN420 Minimum Cuff Length, providing protection to wrist area
- High abrasion resistance (Level 4)
- Latex free
- Suitable for washing

### G60 Level 5 Cut Resistant Sleeve



- Patented engineered yarn provides exceptional protection against cuts and gashes
- High breathability, since yarn transmits heat away
- High cut resistance (Level 5)
- Connectivity to glove to protect vulnerable wrist area
- Adjustable strap to ensure good fit for all arm sizes
- Suitable for washing
- Unique system to provide the highest level of protection, efficiency and productivity



## G60 Level 3 Cut Resistant Glove PU Coated



- Polyurethane coating offers excellent grip
- Excellent dexterity
- High breathability, since yarn transmits heat away
- High cut resistance (Level 3)
- Conforms to EN420 Minimum Cuff Length, providing protection to wrist area
- High abrasion resistance (Level 4)
- Latex free



## G60 Level 2 Cut Resistant Sleeve With Thumbhole



- Aramid yarns provide excellent lightweight cut protection (Level 2)
- Inner cotton liner for extra comfort
- Contact heat protection (Level 1)
- 45.7cm (18") cuff
- Good breathability



## G60 Level 3 Cut Resistant Glove PU Knuckle Coated+



- Minimises the risk of cuts and abrasions to the back of the hands
- Conforms to EN420 standard, providing protection to wrist area
- Lycra fibre with nylon thread combines cut resistance with a comfortable fit
- Yarn transmits heat away, making glove breathable and comfortable
- High cut resistance (Level 3)
- PU coating provides excellent dry and oil grip
- High abrasion resistance (Level 4)
- High tear resistance (Level 4)
- Excellent dexterity



## G60 Level 2 Cut Resistant Sleeve Without Thumbhole



- Aramid yarns provide excellent lightweight cut protection (Level 2)
- Inner cotton liner for extra comfort
- Contact heat protection (Level 1)
- 45.7cm (18") cuff
- Good breathability



## G40 Gloves

### G60 Level 3 Cut Resistant Glove Purple Nitrile



- Nitrile dots on palm offer excellent grip
- Conforms to EN420 Minimum Cuff Length, providing protection to wrist area
- Unique Nitrile coated fingertips – grip with maximum breathability
- High abrasion resistance (Level 4)
- Latex free
- Suitable for washing
- The unique design offers an exceptional level of breathability and comfort
- Ambidextrous for a better cost in use, more productivity and efficiency



### G40 Gloves Smooth Nitrile Coated



- Premium, general purpose glove offering a versatile solution for assembly and general handling
- Ideal for dry or slightly oily tasks
- Perfect for light/medium assembly application, providing high level of dexterity and good mechanical protection
- Smooth Nitrile Coated palm for excellent oil repellence and palm protection
- Seamless nylon knitted backing for breathability and comfort



### G60 Level 2 Cut Resistant Glove Nitrile Coated



- Aramid yarns provide excellent lightweight cut protection (Level 2)
- Nitrile coating offers enhanced grip
- Excellent dexterity
- Excellent abrasion resistance (Level 3)
- Contact heat protection (Level 1)



### G40 Gloves Foam Nitrile Coated



- Premium, general purpose hand protection providing the highest levels of abrasion resistance
- Foam Nitrile Coated palm for excellent dry grip, dexterity and palm protection
- Seamless nylon knitted backing for breathability and comfort
- Highly durable and abrasion-resistant
- Highest abrasion resistance
- The foam nitrile formulation offers maximum comfort and breathability





### G40 Gloves Polyurethane Coated



- Versatile, general purpose hand protection
- Excellent grip due to roughened polyurethane coating
- Also available in grey coating to meet FOD requirements in Aerospace
- Seamless nylon knitted backing for breathability and comfort
- Good tear and abrasion resistance for durability and reduced cost in use
- Excellent dexterity, ideal for handling small Components

### G20 Atlantic Green Nitrile Gloves



- PPE Category III (CE Complex) product classified by EC Council Directive 89/686/EEC
- 0.06 mm thickness provides exceptional touch sensitivity
- Comfort and flexibility
- Food contact approved
- AQL 0.65 to reduce waste and increase protection, efficiency and productivity
- Textured finger tips providing excellent grip
- Excellent tactile sensitivity
- Beaded cuff

### G40 Gloves Latex Coated



- Cost-effective general purpose hand protection
- High tear resistance providing high durability
- Seamless knitted polyester construction offering high breathability for comfort and extended use
- Combines thermal and mechanical protection for handling in a wider range of applications
- Crinkled finish latex coated palm provides excellent grip

### G10 Nitrile Disposable Gloves G10 Blue Nitrile Gloves



- PPE Category I (CE Simple) product classified by EC Council Directive 89/686/EEC
- 0.12mm thickness provides exceptional touch sensitivity
- AQL 1.5
- Premium glove offering high level of comfort
- Extremely resistant providing dexterity, protection and high performance
- Food contact approved

### G35 Gloves

#### G35 Inspection Gloves White Nylon



- Nylon gloves: soft, comfortable, flexible and low linting
- Silicone free on product contact area (palm) to avoid product contamination
- Seamless knit shell for a longer and more comfortable wear
- Ambidextrous: no need to pair to generate better cost in use
- To be used on their own or as liners to provide excellent value for money and flexibility
- Low linting
- 100% Nylon offering a more sensitive glove to allow workers to easily find the defects on surfaces

#### G10 Arctic Blue Nitrile Gloves



- PPE Category I (CE Simple) product classified by EC Council Directive 89/686/EEC
- 0.06mm thickness provides exceptional touch sensitivity
- AQL 1.5
- Comfort and flexibility ideal for intricate assembly work
- All the benefits of natural rubber latex without the risk of reaction.
- Food contact approved

### G20 Limited Chemical Resistant Gloves

#### G20 Blue Nitrile+ Thin Mil Gloves



- PPE Category III (CE Complex) product classified by EC Council Directive 89/686/EEC
- Smooth nitrile to ensure excellent tactile sensitivity and flexibility for maximum comfort
- Beaded cuff
- 0.12mm thickness (minimum)
- AQL 1.5 for pinholes
- It contains no natural rubber proteins, to avoid any risk of Type 1 allergies
- Protective against a wide range of chemical splashes
- Excellent versatility and easy donning

#### G10 Flex Blue Nitrile Gloves



- PPE Category I CE Simple product classified by Council Directive 89/686/EEC
- 0.05mm thickness to guarantee dexterity and maximum touch sensitivity
- AQL 1.5
- Nitrile formulation to provide extreme elasticity but also excellent protection, avoiding risk of type 1 glove associated reaction
- Made of an ultraflexible nitrile that combines the resistance properties of nitrile and the elasticity of latex.
- Powder-free to avoid skin allergies
- Textured fingertips to help grip
- Beaded cuffs to ensure protection
- Food contact approved



A comprehensive range of protective clothing products providing the most appropriate personal protection to meet your needs.

Selecting the correct Safety Protective Clothing product for your particular circumstances can be difficult. The following information may be helpful:

- A71 and A80 are our chemical protective coveralls meeting EN 14605:2005 Type 3.
- A65 FR uses a special fabric providing ISO 14116 Index 1 limited flame spread performance in addition to light liquid splash and particle protection.
- A50 is a unique, treated SMS<sup>1</sup> product offering good levels of protection and comfort in a single product.
- A40 is a film laminate product that offers market leading levels of protection but is not as breathable as A50.
- A45 is a combination product. A40 provides high levels of protection to the front where the majority of contamination will occur with a breathable back panel for additional comfort.
- A25+ provides superior freedom of movement with high levels of breathability.
- A20+ is an SMS product that provides high levels of comfort due to the breathability of the protective base-sheet.

Product	Test Method	A20+	A25+	A40	A45	A50	A65 FR	A71	A80
		High levels of comfort	High comfort with superior freedom of movement	High levels of protection	Combination of A40 for protection and breathable back panel	Combines reasonably high levels of protection and comfort	Flame retardant coverall	Chemical protection	High level chemical protection
Type 3	EN 14605:2005							Pass	Pass
Type 4	EN 14605:2005							Pass	
Type 5	EN ISO 13982-1:2004	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Type 6	EN 13034:2005	Pass	Pass	Pass	Pass	Pass	Pass		
Infective agents	EN 14126:2003							Pass	Pass
Surface resistivity	EN 1149-1:1995	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Radioactive dust	EN 1073-2:2002	Pass		Pass	Pass	Pass	Pass	Pass	Pass
<b>Fabric Tests</b>									
Abrasion resistance	EN 530 Method 2	1	1	6	2	3	2	6	6
Flex cracking resistance	ISO 7854 Method B	3	1	4	4	4	2	2	5
Trapezoidal tear resistance	ISO-9073-4	2	1	2	2	2	2	2	3
Tensile strength	EN ISO 13935-2	1	1	2	1	1	2 <sup>2</sup>	1	2
Seam strength	EN ISO 13935-2	2	2	3	3	3	3	3	4
Puncture resistance	EN 863	1	1	2	2	2	2	2	2
Resistance to ignition	EN 13274.4 Method 3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
<b>EN 368</b>									
Repellence of liquids	EN 368 (30% H2SO4)	3	3	3	3	3	3		
	EN 368 (10% NaOH)	3	3	3	3	3	3		
Resistance to penetration by liquids	EN 368 (30% H2SO4)	3	3	3	3	3	2		
	EN 368 (10% NaOH)	3	3	3	3	3	3		
<b>EN 374:3</b>									
Resistance to permeation	EN 374:3 (30% H2SO4)							6	6
	EN 374:3 (10% NaOH)							6	6
<b>Whole Garment Tests (Tests performed with taping at wrists, ankles &amp; hood)</b>									
Resistance to penetration by liquids in the form of a light spray (mist test)	EN 468 (modified)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Determination of resistance of suits to penetration by aerosols and fine particles	Pr ISO 13982-2 (average total inward leakage)	4.41%	4.26%	5.09%	3.4%	4.34%	10.1%	4.13%	3.6%

The selector is a guide only. It is the responsibility of the employer to make sure the protective clothing is suitable for its intended use. We suggest that you always check the latest version of KIMBERLY-CLARK PROFESSIONAL® product literature to get current information about the products or contact INFOFAX Service by emailing [infofax@kcc.com](mailto:infofax@kcc.com).

1 - Spunbond Meltblown Spunbond

2 - EN ISO 14116:2008 requires a tensile strength of > 150N. This garment has a tensile strength of > 60 N only. Suitability for the intended use needs to be verified

## A80 Chemical Protection Coverall Type 3/5

- 1 Provides an excellent barrier to high pressure jets of aqueous chemicals
- 2 Ultrasonic seams and tear resistant fabric offers a strong liquid tight barrier
- 3 Front sealed by hook and loop fastener allows the garment to be re-used if it is not contaminated
- 4 Specially designed hood, body and waist for comfort and safety

Highly visible for improved worker safety

Silicone-free and anti-static fabric EN 1149-1 for critical areas

EN 1073-2 approved for radioactive dust protection

EN 14126 approved for infective agents protection

- High performance protective clothing fabric
- Outer layer – film coating resists splash and spray from many liquids and dry particulates.
- Inner layer – cloth-like, yet tough and abrasion-resistant spunbond polypropylene.



KLEENGUARD® Coverall



## A71 Chemical Protection Coverall Type 3/4/5

- 1 Durable film laminate with sewn and taped seams provides a strong barrier to chemical spray
- 2 Sewn and taped seams with tear resistant fabric offer a strong liquid-tight barrier
- 3 Storm-flap and hood designed for easier taping to a respirator
- 4 Elasticated hood, cuffs and waist designed for better comfort and safety

Highly visible for improved worker safety

Silicone-free and anti-static fabric EN 1149-1 for critical areas

EN 14126 approved for infective agents protection

EN 1073-2 approved for radioactive dust protection

- High performance protective clothing fabric
- Outer layer – film coating resists splash and spray from many liquids and dry particulates.
- Inner layer – cloth-like, yet tough and abrasion-resistant spunbond polypropylene.



## A65 FR Flame-Retardant Coverall Type 5/6

- 1 Silicone-free for critical areas
  - 2 No chest label to minimise flame hazards
  - 3 Made from a pulp polyester blend and generous cut design
- Type 5/6 protection against limited liquid splash and sprays of non-flammable liquids
- Compliant with EN ISO 14116 :2008 - Index 1 limited flame spread

Antistatic fabric EN 1149-1 for critical areas

Does not burn when in contact with flames

Self-extinguishing

Does not form molten drips or debris

New smaller packaging suitable for vending machines, saves on storage space and transport/handling costs

- Note: KLEENGUARD® A65 FR Coverall must be worn over primary thermally protective coveralls (meeting ISO 14116:2008 Index 3) in environments where flash fire is a concern. The coverall protects the garment underneath and does not reduce the overall thermal protection of the wearer when worn over thermal protective suit.



Chemical Information







# Personal Protective Equipment Protective Clothing KLEENGUARD<sup>®</sup>



## A50 Breathable Coverall Type 5/6

- 1 UPGRADED - new design for better fit. Thumb loops prevent sleeves from riding up and provide increased wrist protection
- 2 Silicone-free, ideal for paint spraying
- 3 Low lint fabric and internal seams reduce the risk of fibre contamination
- 4 Strong triple-stitched seams help to protect against tearing
- 5 Hood designed for respirator use and freedom of movement  
Antistatic EN 1149-1 for critical areas  
Durable SMS Fabric with additional treatment for increased protection against chemical splash  
Breathable fabric reduces the risk of heat stress  
EN 1073-2 approved for radioactive dust protection  
2-way zip for quick, easy access to work clothes  
Available in white and blue Protective Clothing, white jacket and trousers  
Reduced packaging reduces waste. Small, compact size is ideal for vending machines

High performance SMS fabric  
Outer layers—cloth-like, yet strong and abrasion-resistant spunbond polypropylene.

Middle layer – intricate web of microfibrils that filters out many waterbased liquids and dry particulates.

CE0120  
EN ISO 13962-1:2004 Type 5 Particle protection  
EN 13034:2005 Type 6 Limited splash protection  
EN 1073-2:2002 Radioactive dust contamination protection  
EN 1149-1:1995 Antistatic

Chemical Information  
Accessories

## A45 Breathable Combination Coverall Type 5/6

- 1 UPGRADED - new design for better fit. Thumb loops prevent sleeves from riding up and provide increased wrist protection
  - 2 Silicone-free, ideal for paint spraying
  - 3 Full length zip facilitates putting on/taking off garment and offers better coverage of chin and neck
  - 4 Specially designed hood for respirator fit and freedom of movement
  - 5 Longer arms for a better fit with gloves
- Superior breathability with a durable SMS fabric back panel with additional treatment for increased protection against chemical splash
- Antistatic fabric EN 1149-1 for critical areas
- Ultra low-lint performance, film laminate and internally bound seams significantly reduce levels of lint
- Front, arms, legs and hood made of film laminate fabric
- EN 1073-2 approved for radioactive dust protection
- Reduced packaging reduces waste. Small, compact size is ideal for vending machines

High-performance protective clothing fabric  
Front, arms, legs and hood  
Outer layer – film coating resists splash and spray from many liquids and dry particulates.  
Inner layer – cloth-like, yet tough and abrasion-resistant spunbond polypropylene. Back panel – outer layer – cloth-like, yet strong and abrasion-resistant spunbond polypropylene.  
Inner layer – intricate web of microfibrils that filters out many water-based liquids and dry particulates.

CE0120  
EN ISO 13962-1:2004 Type 5 Particle protection  
EN 13034:2005 Type 6 Limited splash protection  
EN 1073-2:2002 Radioactive dust contamination protection  
EN 1149-1:1995 Antistatic

Chemical Information  
Accessories

Standard protective clothing – after 10 minutes of strenuous work.

KLEENGUARD<sup>®</sup> A45 Coverall The temperature is lower and more homogeneous. The body stress for the person is considerably lower.

## A40 Liquid and Particle Protection Coverall Type 5/6

- 1 UPGRADED - new design for better fit. Thumb loops prevent sleeves from riding up and provide increased wrist protection
- 2 Strong triple-stitched seams help protect against tearing
- 3 Hood designed for respirator use and freedom of movement
- 4 Full length zip, facilitates putting on/taking off garment
- 5 Ultra low-lint performance, film laminate and internal seams significantly reduce levels of lint  
Film laminate technology provides an outstanding barrier against a wide range of chemicals  
Particle protection, keeps out > 99% of fibres greater than 1 micron  
Antistatic fabric EN 1149-1 for critical areas  
Silicone-free, ideal for paint-spraying  
EN 1073-2 approved for radioactive dust protection  
Compressed packaging provides auto-dispensing system and reduces storage space  
Sealed polybags for low contamination risk

High performance clothing fabric  
Outer layer – film coating resists splash and spray from many liquids and dry particulates.  
Inner layer – cloth-like, yet tough and abrasion-resistant spunbond polypropylene.

EN ISO 13962-1:2004 Type 5 Particle protection  
EN 13034:2005 Type 6 Limited splash protection  
EN 1073-2:2002 Radioactive dust contamination protection  
EN 1149-1:1995 Antistatic  
CE0120

Chemical Information  
Accessories



## A25+ Protective Coverall with Stretch Panels Type 5/6

- 1 Grey stretchable film laminate is strategically placed to provide greater freedom of movement
- 2 Breathable white SMS fabric reduces the risk of heat stress
- 3 Longer arms for a better fit with gloves

Innovative design for additional wearer comfort

Antistatic fabric EN 1149-1 for critical areas

General purpose protective clothing suitable for handling liquids, powders, general manufacturing and maintenance

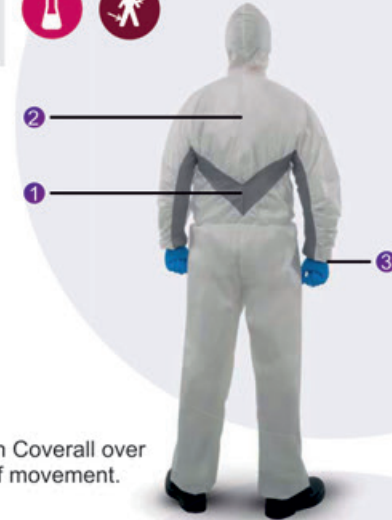
Both white SMS and grey stretchable film laminate fabrics ensure resistance to 99% of particulates larger than 1 micron (I.O.M. Aloxite test) and water based liquids

Full length zip facilitates putting on/taking off garment and offers better coverage of chin and neck

Silicone-free

EN 1073-2 approved for radioactive dust protection

Reduced packaging reduces waste. Small compact size makes it ideal for vending machines



Did you know?  
90% of users preferred  
KLEENGUARD® A25+  
Liquid & Particle Protection Coverall over  
Tyvek® Classic for ease of movement.

## A20+ Particle Protection Coverall Type 5/6

- 1 UPGRADED - new design for better fit. Thumb loops prevent sleeves from riding up and provide increased wrist protection
- 2 Triple-stitched internal seams protect against tearing
- 3 Specially designed body, hood and waist for comfort and safety

Antistatic EN1149-1 for critical areas

Durable SMS fabric keeps out 99% of particles larger than 1 micron (I.O.M. Aloxite test)

Breathable fabric reduces the risk of heat stress

Silicone-free for critical areas

EN 1073-2 approved for radioactive dust protection

Reduced packaging reduces waste. Small, compact size is ideal for vending machines



High performance SMS fabric  
Outer layers – cloth-like, yet strong and abrasion-resistant spunbond polypropylene.  
Middle layer – intricate web of microfibrils that filters out many water-based liquids and dry particulates.

## A10 Light-Duty Coverall

- 1 Elasticised cuffs, ankles and waist improves fit and wearer safety
- 2 Strong triple-protection stitched seams help to protect against tearing

Durable spunbond fabric protects the user's clothes

Breathable fabric reduces the risk of heat stress

Comfortable body design for freedom of movement

Silicone-free





## A10 Light-Duty Visitor Coat













Spunbond polypropylene material

Designed to keep visitors clothing from becoming contaminated









## A40 Accessories Cat1 Products

Constructed using the same antistatic material as our A40 Coverall

	Description	Size/Code	Colour	Case Contents	PPE Classification
	A40 Accessory – Short Apron	44481		100 × 	CAT I
	A40 Accessory – Sleeve	98730		200 × 	CAT I
	A40 Accessory – Overshoe	98700		200 × 	CAT I
	A40 Accessory – Overboot	98800		100 × 	CAT I










## A40 Overshoe with Sole

Constructed using the same antistatic material as our A40 overall - with durable sole

	Description	M/L	XL/XXL	Colour	Case Contents	PPE Classification
	A40 Accessory – Overshoe with Sole	98710	98720		200 × 	CAT I
	A40 Accessory – Overboot with Sole	98810	98820		100 × 	CAT I

## A10 Overshoe with sole

Constructed using the same antistatic material as our A50 Coverall

	Description	Size/Code	Colour	Case Contents	PPE Classification
	A10 Accessory - overshoe + sole	8272		200 × 	CAT I
	A10 Accessory - overshoe XL + sole	8273		200 × 	CAT I
	A10 Accessory – Mob Cap	82600		1000 × 	CAT I



**JACKSON SAFETY® Eye Wear  
V60 Nemesis Rx, V50 Calico  
and V40 HellRaiser**

**JACKSON SAFETY® Eye Wear  
V30 Nemesis, V30 Nemesis VL  
and V20 Purity**

**V50 Eye Wear  
Calico**



- Enhanced version of the popular V50 design
- Foam fog and particle shield provides extra protection around lens
- Anti-fog lens coating that meets European Standard EN166 N
- Anti-scratch lens coating that meets European Standard EN166 K
- Removable arms and head-strap attachment allow easy conversion from spectacles to goggles

**V30 Eye Wear  
Nemesis VL**



- Frameless ultra-lightweight design
- No-brow design increases upward and peripheral vision
- Compact profile accommodates smaller faces
- Slip-stop temples reduce slipping
- Includes free neck cord

**V60 Eye Wear  
Nemesis Rx**



- Bifocal style with diopters for vision assistance
- +1.0 to +3.0 diopters available
- Enhanced nose piece design to channel away sweat
- Every pair includes a neck cord

**V30 Eye Wear  
Nemesis**



- Most popular product - sleek, sporty style
- Anti-scratch and anti-fog available in 3 lens types
- Soft touch temples for added comfort
- Every pair includes a neck cord

**V40 Eye Wear  
HellRaiser**



- Streamlined, sunglass styling
- Lightweight, flexible design

**V20 Eye Wear  
Purity**



- A great look for lightweight, economy protective eye wear
- Wrap-around lens for better eye protection
- Comfortable, padded temples

**JACKSON SAFETY® Eye Wear  
V10 Unispec and V10 Element**

**JACKSON SAFETY® Face Protection  
F20 Face Shield and Brow Guard**

**V10 Eye Wear  
Unispec**



- Low-cost wrap-around protection with a one-piece polycarbonate lens and uncoated frame
- Side shields provide added protection
- Fits over most prescription eye wear

**Face Shield  
F20 Polycarbonate**



- Full face protection against particles and sparks
- Meets EN166 level B for Medium impact protection (120 m/s)
- Meets EN166 level 2 for Intermittent use

**V10 Eye Wear  
Element**



- Lightweight popular styling with an economical price
- Universal nose bridge for comfort
- Completely Dielectric

**Brow Guard  
J-Maxx**



- Provides protection around the forehead and holds the Face Shield piece in place
- Adjustable over-top head strap, to suit user
- Side ratchet adjuster, to suit the comfort of the user
- Easy to use unlocking system for quick removal





**JACKSON Safety\* Hearing Protection**  
H50/H30 Hearing Protection

**H50 Multiple-use Hearing Protection**  
Ear Clips

SNR 23



- Patented clip-on design:**
- Designed to be easily inserted and removed
  - Designed to ensure long wearing comfort
  - Lightweight clips stay securely in place
  - Designed not to interfere with other PPE
  - Designed to be used with JACKSON SAFETY\* H50 Replacement Pads

- User friendly:**
- Soft foam uniquely shaped to conform to the ear canal opening
  - Easy and hygienic insertion and removal, minimising risk of contamination due to direct contact of hands with foam
  - Individual carry case provided with each pair
  - Corded and uncorded options available
  - Reusable, helps to reduce cost in use and increase efficiency and productivity

**H50 Multiple-use Hearing Protection**  
Replacement Pads

SNR 23



- Replaceable pad system to be used in conjunction with the JACKSON SAFETY\* H50 Hearing Protection
- One clip can last numerous replacement pads
- Slotted one-way system that avoids errors in fitting
- Reusable, helps to reduce cost in use

**H30 Hearing Protection**  
Flexible Earplugs



- Unique tapered design :**
- Quick and comfortable custom fit
  - Eliminates need to roll down foam
  - Provides instant protection upon proper insertion, no need to wait for foam to expand

- User friendly:**
- Flexible handle and soft exterior work together to provide more comfort to the user
  - Easy hygienic insertion and removal, minimises hand to foam contamination
  - Each pair complete with individual carry case
  - Reusable, helps to reduce cost in use

SNR 28

**JACKSON Safety\* Hearing Protection**  
H20/H10 Hearing Protection

**H20 Hearing Protection**  
Reusable Earplugs



- High visibility for easy compliance monitoring
- Each pair complete with resealable bag
- Corded and uncorded options available
- Also available in corded metal detectable option
- Soft design to ensure comfort and conformity
- Specific design for easier holding and donning

- Each pair individually bagged in resealable bags to maximise productivity and efficiency
- Ideal for medium-low noise environment

SNR 27  
MD

SNR 25

**H10 Hearing Protection**  
Disposable Earplugs



- Soft roll-down foam for easy insertion
- High visibility for easy compliance monitoring
- Each pair individually bagged
- Corded and uncorded options available
- Also available in corded metal detectable option
- Longer and softer for helping correct insertion
- Ideal releasing time
- Ideal for high noise environments

SNR 34  
MD

SNR 31



R30/R20 Folded Range

JACKSON SAFETY\* Respirators

R30 FFP3 RD Respirator  
Valved



**Protection against:**

- Fine dusts
- Water and oil-based mists
- Metal fumes
- Caustics
- Solvents

- Dolomite Test passed – proven filtering performance over time
- Exhalation valve – enhanced comfort through heat and moisture reduction
- F120 mg loading test passed – meets latest regulations – filtering performance even when filtermedia are under heavy particle load
- Extra soft inner lining – extra comfort
- Easy dispensing – no dust penetration into box
- Red colour coding – easy distinction of performance level (FFP3)
- Reusable at the end of the shift (R)

R20 FFP2 NR Carbon Respirator  
Valved



**Protection against:**

- Fine dusts
- Water and oil-based mists
- Organic vapours

- Carbon layer helps stop nuisance odours below their Workplace Exposure Level (WEL)
- Exhalation valve – enhanced comfort through heat and moisture reduction
- Yellow colour coding – easy distinction of performance level (FFP2)

R20/R10 Folded Range

R30 / R20 Moulded Comfort Strap Range

R30 FFP3 RD Respirator  
Valved



**Protection against:**

- Fine dusts
- Water and oil-based mists

- Dolomite Test passed – proven filtering performance over time
- Exhalation valve – enhanced comfort through heat and moisture reduction
- Yellow colour coding – easy distinction of performance level (FFP2)
- Reusable at the end of the shift (R)

R30 FFP3 NR Particulate Respirator  
Dual Valved



**Protection against:**

- Fine dusts
- Water and oil-based mists
- Metal fumes

- Dual valves designed to maximise warm and humid airflow away from the face and help reduce fogging on eye wear
- Colour-coded red for easy distinction of performance level (FFP3)
- Dolomite Test passed – proven filtering performance over time

R20 FFP2 RD Respirator  
Unvalved



**Protection against:**

- Fine dusts
- Water and oil-based mists

- Dolomite Test passed – proven filtering performance over time
- Yellow colour coding – easy distinction of performance level (FFP2)
- Reusable at the end of the shift (R)

R20 FFP2D NR Nuisance Odour Respirator  
Dual Valved



**Protection against:**

- Fine dusts
- Water and oil-based mists
- Metal fumes
- Organic vapours

- Disposable FFP2 respirator coated with potassium carbonate that relieves the wearer from nuisance odour from organic vapours below their Workplace Exposure Level (WEL)
- Dual valved for increased respiratory comfort
- Colour-coded yellow for easy distinction of performance level FFP2

R10 FFP1 R Respirator  
Unvalved



**Protection against:**

- Fine dusts
- Water and oil-based mists

- Blue colour coding – easy distinction of performance level (FFP1)
- Reusable at the end of the shift (R)

R20 FFP2 NR D Respirator  
Dual Valved



**Protection against:**

- Fine dusts
- Water and oil-based mists
- Metal fumes

- Dual valves designed to maximise warm and humid airflow away from the face and help reduce fogging on eye wear
- Colour-coded yellow for easy distinction of performance level (FFP2)
- Dolomite Test passed – proven filtering performance over time

R10 Moulded Comfort Strap Range

JACKSON SAFETY\* Respirators

R10 FFP1 NR Particulate Respirators  
Dual Valved



**Protection against:**

- Fine dusts
- Water and oil-based mists

- Dual valves designed to maximise warm and humid airflow away from the face and help reduce fogging on eye wear
- Colour-coded blue for easy distinction of performance level (FFP1)

R10 FFP1 NR Particulate Respirator  
Unvalved



**Protection against:**

- Fine dusts
- Water and oil-based mists

- Colour-coded blue for easy distinction of performance level (FFP1)





## TOILET SYSTEM CLEANING / SANITIZING PROCESS

Passengers and cabin crew on board of an aircraft may be carriers of intestinal disease. Meticulous cleanliness of aircraft toilets, together with sanitary treatment, handling and disposal of toilet wastes, is therefore of the utmost importance.

Although toilets on modern aircraft incorporate a complex electrical flushing mechanism, a filter and a recirculating or vacuum system - in contrast to the simple portable container on earlier aircraft – they are still basically chemical closets and are provided with retention tanks.

The retention tank without the addition of any chemical would, in effect be a cesspool, simply holding sewage until the contents are discharged at the next airport. If any passenger using the toilet has an intestinal infection, there is a risk that the disease will be transmitted when the toilet tank is emptied. It is therefore advisable to use a chemical compound, which should satisfy the following requirements:

### Aircraft Toilet Deodorants

- 1** In the presence of faeces and urine, it should be powerful enough at the recommended concentrations to kill pathogenic organisms within 15 minutes.
- 2** It should prevent the development of faecal and ammoniacal odors for at least 24 hours from the charging of the closet, and itself be free, charged or uncharged with organic matter, of any unpleasant or irritant odor, even at tropical temperatures.
- 3** It should have detergent properties and facilitate the cleaning of the closet after emptying.
- 4** It should be constant in formulation and composition, consistent in performance and stable in storage for 12 months at temperatures ranging between 1°C and 54°C (34°F and 130°F).
- 5** It should not corrode aluminum and its alloys (with or without phenolic finishes) or stainless steel: nor should it craze Perspex, Plexiglas and similar substances. Ideally, the formula should not contain zinc chloride.
- 6** As far as possible, it should not be permanently staining and should be easily washed off.
- 7** It should not irritate the normal human skin and mucous membranes; this is particularly important in tropical climates, where changes of sensitization are greater in susceptible individuals.
- 8** The diluted fluid should prevent the formation of obnoxious or explosive gases from excreta. It should not give rise to explosive or otherwise injurious gases at a pressure of 16.7 kPa (125mmHg) and at a temperature of 27°C (80°F), nor should the fluid have a flash-point lower than 66°C (150°F).
- 9** It should not cause the wastes, when disposed of after normal aircraft usage, to be detrimental to the correct biological working of sewage treatment plants.
- 10** The color of the diluted fluid, which should be distinctive and aesthetically acceptable in appearance, should, at all stages of use as recommended by the manufacturer, be such that other contents of the closet are obscured.
- 11** At the maximum dilution in a fully loaded toilet it should retain its bactericidal properties.



## Additional requirements obtained with ACC 3300

- Product does not contain traditional quaternary ammonium compounds that may cause problems in waste water treatment installation due to weak biodegradability.
- No chloride that may cause corrosion on aircraft parts.
- Product not only kills bacteria but has powerful virus killing properties as well.
- The dye in ACC 3300 is not staining and doesn't penetrate through aircraft paint system (no blue streaks).

### In-Flight servicing

In-flight additions of the toilet deodorant can be done by using ACC 3330. ACC 3330 is a powder that is packed in 20 mg sachets. This product can also be used for the initial charge when recharging from a vehicle is not possible.

### In-Place Cleaning

Normal servicing of retention tanks does not always remove all the accumulated solids from the tanks, the tubes and around the flushing spray rings. It is therefore recommended by OEM that, after draining, the toilets should be filled to capacity with clean water and flushed. In addition, at intervals of 3 months the tanks should be filled with water containing a 1-2% heavy-duty detergent like ACC 3340 Disinfectant. The solution should be left in the system over night, or longer if possible. During this period the mixture should be agitated by operating the flushing mechanism. The tank should be drained and recharged in the normal way.

Above procedure is especially developed for recirculation system and due to the cleaning capabilities of ACC 3300 less critical.

To remove in-place the contaminants and scale in the vacuum waste tubes.

The following procedure is advised:

- Add appr. 2 liters of crushed ice to the toilet bowl.
- Add appr. 2 liters of ACC 3320 to the toilet bowl. Immediately flush the toilet until it is empty.
- Immediately add 4 liters of water to the toilet bowl.
- Flush the toilet to remove the cleaner from the toilet

When above in-place cleaning procedure is followed regularly, the time between overhaul of the toilet system is stretched considerably since scale and waste material will not have a chance to accumulate.

### Toilet System Overhaul

Heavy maintenance of the toilet system means complete disassembly and cleaning of the whole unit. As previously mentioned, in order to eliminate the possibility of cross-infection, personnel engaged in toilet maintenance should wear protective clothing. Prior to the disassembly of the toilet bowl, disinfection of the areas around it would be advisable. ACC 3300 is the most powerful product to do this job. Product should be packed in special spray bottles.

The complete toilet system; bowl, tubes, pump, valves, etc. have to be flushed to remove the sludge and the scale that is embedded into the sludge by using ACC 3340, developed for this operation.

### Cleaning of Tools

The tools used for disassembly of the toilet system should be thoroughly cleaned and disinfected as well. ACC 3340 in combination with ultrasonic cleaning is the most suitable process for this application.





# Aircraft Total Health Safety and Hygiene Solutions



<b>Product Group</b>	<b>Toilet deodorant and disinfectant</b> <b>ACC 3300</b>
<b>Description</b>	ACC 3300 with a pleasant fragrance hides the less acceptable scents in toilets and kills a wide range of bacteria.
<b>Characteristics</b>	<p>Easy to mix with water.</p> <p>Does not attack substrates used in aircraft toilets.</p> <p>Does not cause corrosion nor spots or stains on the substrates.</p> <p>Color shade indicates the concentration of the effective material.</p> <p>Adding the contents of special sachets gives the advised concentration.</p> <p>Leaves no deposits in toilet systems</p>
<b>Specification</b>	AMS 1476B
<b>Application</b>	<p>Mix 1-5 parts of ACC 3300 with 1000 parts of water by volume.</p> <p>Add the mix into the toilet.</p> <p>Mix 10 parts of ACC 3300 with 1000 parts of water by volume when operating in areas with epidemic diseases.</p>
<b>Toxicity and Hazards</b>	<p>Before use always refer to <b>MATERIAL SAFETY DATA SHEET</b> for precautionary, handling and first aid information.</p> <p>Avoid contact with the skin and in case of accidental spillage rinse with water.</p> <p>If swallowed only drink copious amounts of water or milk.</p> <p>Dispose of ACC 3300 per applicable regulations. Refer to <b>MATERIAL SAFETY DATA SHEET</b> for additional disposal information.</p>
<b>Storage</b>	Store at a temperature between 5-35°C.
<b>Shelf life/Packing</b>	12 Months/ 25 KG Pail
<b>Product Group</b>	<b>Aircraft toilet descaler</b> <b>ACC 3320</b>
<b>Description</b>	ACC 3320 acidic cleaner removes chalky residues from waste tubes in aircraft toilet systems.
<b>Characteristics</b>	Ready to use liquid.
<b>Specification</b>	AMS 1640C
<b>Application</b>	<p>Add approximately 2 liters of crushed ice to the toilet bowl.</p> <p>Add approximately 2 liters of ACC 3320 to the toilet bowl.</p> <p>Immediately flush the toilet until it is empty.</p> <p>Immediately add 4 liters of water to the toilet bowl.</p> <p>Flush the toilet to remove the cleaner from the toilet.</p> <p>Make sure to flush the toilet immediately after adding the toilet cleaner to the toilet bowl as ACC 3320 is acidic.</p> <p>Do not allow ACC 3320 to affect the structure of the plane.</p>
<b>Toxicity and Hazards</b>	<p>Before use always refer to <b>MATERIAL SAFETY DATA SHEET</b> for precautionary, handling and first aid information.</p> <p>Avoid contact with eyes, skin and clothing.</p> <p>Contains ethylic acid.</p> <p>Do not drink/swallow.</p> <p>Protective clothing such as acid resistant gloves and goggles should be worn when handling this product.</p> <p>Dispose of ACC 3320 per applicable regulations. Refer to <b>MATERIAL SAFETY DATA SHEET</b> for additional disposal information.</p>
<b>Storage</b>	Store at temperatures between 5 - 35°C.
<b>Shelf life/Packing</b>	24 Months/ 1 KG Can – Packed per 12



# Aircraft Total Health Safety and Hygiene Solutions Technical Data Sheets



<b>Product Group</b>	Toilet deodorant and disinfectant in sachet form <b>ACC 3330</b>
<b>Description</b>	ACC 3330, a powder with a pleasant fragrance, that hides the less acceptable scents in aircraft toilets and kills a wide range of bacteria.
<b>Characteristics</b>	<p>Easy to mix with water.</p> <p>Non corrosive to metal and plastics.</p> <p>Does not attack substrates used in aircraft toilets.</p> <p>Color shade indicates the concentration of the effective material.</p> <p>Adding the contents of special sachets gives the advised concentration.</p>
<b>Specification</b>	AMS 1476B
<b>Application</b>	Add 100 grams ACC 3330 to 100 liters of water. Stir well
<b>Toxicity and Hazards</b>	<p>Before use always refer to <b>MATERIAL SAFETY DATA SHEET</b> for precautionary, handling and first aid information.</p> <p>Avoid contact with eyes, skin and clothing.</p> <p>Harmful if swallowed.</p> <p>ACC 3330 contains quaternary ammonium compound.</p> <p>Do not swallow.</p> <p>Use with adequate ventilation.</p> <p>Dispose of ACC 3330 per applicable regulations. Refer to <b>MATERIAL SAFETY DATA SHEET</b> for additional disposal information.</p>
<b>Storage</b>	Store at temperatures between 5-35°C.
<b>Shelf life/Packing</b>	24 Months/ 4 KG Bucket (Each Bucket contains 200 x 20 gr/Sachet)
<b>Product Group</b>	Cabin deodorizer, sanitizer and cleaner <b>ACC 3340</b>
<b>Description</b>	ACC 3340 removes any common type of soil, dirt and grease and kills a wide range of bacteria and dangerous germs as well.
<b>Characteristics</b>	<p>Is a strong deodorizer with a pleasant fragrance</p> <p>Refreshes the air effectively.</p> <p>Safe on all metals and painted areas.</p> <p>Concentrated and very economical.</p>
<b>Specifications</b>	AMS 1550B, Boeing D6-7127
<b>Application</b>	<p><b>Cleaner and Germicide:</b> Mix 1 part of ACC 3340 with 25-50 parts of preferably hot water by volume.</p> <p><b>Cleaner-sanitizer:</b> Mix 1 part ACC 3340 with 50 parts hot or cold water by volume.</p> <p><b>Cleaner-deodorizer:</b> Mix 1 part ACC 3340 with 50 parts hot or cold water by volume.</p> <p><b>For mopping floors:</b> Mix 1 part ACC 3340 with 50 parts hot or cold water by volume.</p> <p>Apply ACC 3340 mixture to all surfaces by mop or clean cloth. Remove the ACC 3340 mixture and dirt. Let it dry.</p>
<b>Toxicity and Hazards</b>	<p>Before use always refer to <b>MATERIAL SAFETY DATA SHEET</b> for precautionary, handling and first aid information.</p> <p>Avoid contact with eyes.</p> <p>Do not swallow.</p> <p>Dispose of ACC 3340 per applicable regulations. Refer to <b>MATERIAL SAFETY DATA SHEET</b> for additional disposal information.</p>
<b>Storage</b>	Store at temperatures between 5 - 35°C.
<b>Shelf life/Packing</b>	24 Months/ 25 KG pail





# AIRCRAFT CABIN DEODORIZER, SANITIZER & CLEANER IN FOAM VERSION



## ACC 3340 AIRCRAFT CABIN Deodorizer, Sanitizer & Cleaner in Foam Version



## ACC 3340 TOTAL HYGIENE SOLUTION FOR AIRCRAFT CABIN



ACC 3340 removes any common type of soil, dirt and grease and kills a wide range of bacteria and dangerous germs.  
Strong deodorizer with a pleasant fragrance. Refreshes the air effectively. Safe on all metals and painted areas.

### DANGER

Pressurized container: may explode if heated.  
Causes severe skin burns and severe eye damage.  
Harmful to aquatic life with long lasting effects.  
Keep away from heat, sparks, open flames and hot surface - No smoking.  
Do not spray on an open flame or other ignition source.  
Pressurized container: do not pierce or burn, even after use.  
Avoid breathing spray.  
Protect from sunlight.  
Do not expose to temperatures exceeding 50°C/122°F.  
Keep out of the reach of children.  
Wear protective gloves and eye protection.  
Contains 5% by mass of flammable components.  
Contains nonionic surfactant and ethoxylated fat alcohol.



Lifetime: 3 years  
UN 1950

### Direction of use:

Shake ACC 3340 well. Spray on the surface to be cleaned & sanitized. Leave it on the surface for 20 seconds then wipe it off with sponge, cloth or soft bristle brush.

**AMS 1550B**

**Boeing D6-7127**

**AirChem Consumables**

JAFZA 10, 10F14  
P.O.BOX 261503, Jebel Ali FZ, Dubai, UAE  
airacc@acc.ae  
Tel: +971 4 881 8084  
Fax: +971 4 881 6022

Cont. 500 ml 650 e 3

## ACC 3340 AIRCRAFT CABIN DEODORIZER, SANITIZER & CLEANER

ACC 3340 removes any common type of soil, dirt and grease and kills a wide range of bacteria and dangerous germs

- Strong deodorizer with a pleasant fragrance
- Refreshes the air effectively
- Safe on all metals and painted areas
- Concentrated and very economical





# AIRCRAFT CABIN CLEANER IN FOAM VERSION



## ACC 2201 Aircraft Interior Cleaner



## ACC 2201 Aircraft Interior Cleaner



### Directions for use:

Shake **ACC 2201** well before use. Spray on the surface to be cleaned. Leave it on the surface for 20 seconds then wipe it off with sponge, cloth or soft bristle brush.

**ACC 2201**, effectively cleans all types of dirt from aircraft interior surfaces, seat leather, sidewalls, trays, painted and unpainted areas.

### DANGER

Pressurized container: may explode if heated.  
Causes severe skin burns and severe eye damage.  
Harmful to aquatic life with long lasting effects.  
Keep away from heat, sparks, open flames and hot surface - No smoking.  
Do not spray on an open flame or other ignition source.  
Pressurized container: do not pierce or burn, even after use.  
Avoid breathing spray.  
Protect from sunlight.  
Do not expose to temperatures exceeding 50°C/122°F.  
Keep out of the reach of children.  
Wear protective gloves and eye protection.  
Contains 5% by mass of flammable components and ethoxylated fat alcohol.



Lifetime: 3 years  
UN 1950

Non Flammable  
Non crazing to plexiglass  
No high strength steel embrittlement  
Improves paint lustre and leather look

**AMS 1550B**

**AirChem Consumables**

JAFZA 10, 10F14  
P.O.BOX 261503, Jebel Ali FZ, Dubai, UAE  
airacc@acc.ae  
Tel: +971 4 881 8084  
Fax: +971 4 881 6022

Cont. 500 ml (650) e 3

# ACC 2201 AIRCRAFT CABIN CLEANER

ACC 2201, effectively cleans all type of dirt from aircraft interior surfaces, seat leather, sidewalls, trays, painted and unpainted areas





# Airliners Catering Hygiene







## Professional **Cleaning Products**

### Floor Cleaner:

- 1** PATINA ..... 152
- 2** GLITTER ..... 152
- 3** TERACLEAN ..... 152
- 4** D-FLOOR ..... 153
- 5** SHEEN ..... 153

### DISHWASHING DETERGENT:

- 6** BRIGHT ..... 153
- 7** BRIGHT ECO ..... 154
- 8** BRIGHT HARD ..... 154
- 9** BRIGHT G ..... 154
- 10** DISHINE ..... 155

### RINSE AID:

- 11** RINSEOUT ..... 155
- 12** CLEANAID ..... 155

### OVEN CLEANER

- 13** OVENICE ..... 155
- 14** OVENICE TAB ..... 155

### DEGREASER:

- 15** CARBOFF PLUS ..... 156
- 16** FRYFIX TAB ..... 157





## ACC Professional Kitchen Cleaning Products

### SANITIZER:

- 17 SANTEX .....157
- 18 SHINEX .....157
- 19 CIDE .....158



### HAND WASHING LIQUID:

- 23 FRESH HAND .....159
- 24 CLEAN HAND .....159
- 25 DETROGEL .....160



### ALKALINE CLEANER:

- 20 BURNISH .....158



### COFFEE MACHINE FILTER CLEANER

- 26 COFFEE CLEAN .....160



### STAINLESS STEEL CLEANER /POLISH

- 21 GLAZER .....158



### SCALE REMOVER:

- 27 SCALEOFF .....160
- 28 SCALEOFF GEL .....161



### GLASS CLEANER:

- 22 GLEAM .....159



### DRAIN CLEANER:

- 29 DRAIN CLEANER .....161





## 1 PATINA SANITIZING DETERGENT

PATINA is a sanitizing salt-based detergent suitable to clean, deodorize and sanitize communities, working and plant areas. PATINA is particularly effective to eliminate trash deposit odours

PATINA is a neutral liquid, low foaming, rose-coloured, with a pleasant smell.

PATINA can be used with mops, towels, wipes or by spray application and is easy to rinse.

## 2 GLITTER NTA FREE SCENTED LIQUID DETERGENT

GLITTER is a non-flammable water-based concentrated cleaning agent, safe on all unpainted and well cross-linked painted surfaces. It is safe on almost all metal including steel, aluminum alloys and zamak and on Plexiglas and other plastic materials. Should not be used on magnesium.

GLITTER is easy to rinse and leaves no scratches, stains or deposits on the surfaces. It is used diluted with water. It produces little foam and has a pinkish colour with a pleasant smell.

## 3 TERACLEAN NO-FOAMING DECARBONIZER CAUSTIC DETERGENT

It is a caustic-based concentrated liquid formula, specifically studied to remove carbonate residuals and other residues, as well as particularly strong lime scale. It can be used in the engineering, transport, food industry, etc. to clean greases, annealed oils, scaling, protective films as well as some lacquers and paints.

It is a clear liquid containing caustic substances, organic sequestrants and corrosion.

It can be used by immersion procedure in hot tanks as well as by spraying or circulation equipment, based on the different existing machinery and plants. It can safely be used on iron, steel, stainless steel, bronze and copper. It cannot be used on aluminum and light alloys or zinc alloys.

inhibitors, with low foaming characteristics that allow to use it with washing equipment through spraying devices as well as chain washing booths. It can also be used to clean floor areas with washing and wash-and-dry machines, even because it does not cause pump cavitation. It does NOT contain phosphates.





## 4 D-FLOOR PERFUMED QUICK EVAPORATION SURFACE SANITIZER FOR SWEEPERS

Perfumed and not foaming self-drying surface sanitizer for sweeper. It leaves no residuals on mechanical pieces and it doesn't produce cavitation. The products has a bactericide action on the residuals left in the reservoir. It contains particular sequester agents, in a calibrated mixture of tension-active anionic and non-ionics, anti-redeposit.

The product can be used on each type of surfaces, varnished or not, tiles, marble, linoleum.

It has been studied for the sweepers use as, with the right dosage, it avoids cavitation in the pumps and eliminate trash deposit odors in the reservoir. It doesn't leave the silicon residuals in the pouring pumps.



## 5 SHEEN SCENTED LOW-FOAM DETERGENT FOR HARD SURFACES

SHEEN is a yellow liquid, water-based, lightly alkaline, that contains anionic and non-ionic surfactants, anti-deposit agents and penetrating additives for enhanced effectiveness.

It can be safely used on all surfaces, unpainted or painted, all types of fabric and their resistant colours, tiles, marble, linoleum, and furniture. Plastic parts, Plexiglas and artificial leather may be cleaned as well.

SHEEN is a liquid detergent with a pleasant lemon smell for multiple application like cleaning kitchen floors.

SHEEN has a very low foaming index so no need to be rinsed unless specifically necessary.



## 6 BRIGHT CHLORINATED DISHWASHER DETERGENT

BRIGHT is a light yellow liquid detergent, formulated for dishwashers that have a water softening device.

BRIGHT also contains water softening agents just as precaution in case the softening device malfunctions.

it does not contain phosphates It can be safely used on all metals that are normally used in the construction of dishwashers and on all flatware and cutlery (colour variations on cheap decorated flatware and cutlery may be noticed).

BRIGHT contains whitening agents that make the removal of tea, coffee and other stubborn stains easier. It has a sanitizing action on all cutlery and flatware as well.

BRIGHT is of particular interest for hospitals, restaurants, hotels, etc., where hygiene is a very important factor.







## 7 BRIGHT ECO CHLORINATED DISHWASHER DETERGENT

BRIGHT ECO is a chlorinated liquid, alkaline detergent for mechanic washing in tunnel dishwashers or basket dishwashers. BRIGHT ECO is a caustic product specially used in case of particularly visible dirty residues.

BRIGHT ECO contains water softeners, padding agents and free chlorine that has an effective sanitizing action during the washing cycle and preferably it should be used with automated electronic dispensers, allowing an accurate control.

BRIGHT ECO can safely be used on pots, cutlery, etc. It must not be used on aluminum.



## 8 BRIGHT HARD DETERGENT FOR DISHWASHING MACHINE

BRIGHT HARD it is a light yellow liquid detergent formulated for dishwashing machines.

BRIGHT HARD is suitable to use with hard water and very dirty dishes. BRIGHT HARD is a caustic product with a very high sequestration power that does not contain phosphates, the pH solution @ 1% is >12 and it produces very little foam.

BRIGHT HARD can be used in any kind of dishwashing machine (tunnel, cabinet, etc.) and any kind of dishes and vessels, glassware, pottery.

BRIGHT HARD must not be used on aluminium, galvanized materials and copper alloys.



## 9 BRIGHT G SPECIAL GLASS WASHER DETERGENT

BRIGHT G is an alkaline chlorinated liquid product, specifically developed to wash glasses, cups, and flatware. It is formulated with caustics, water softeners and chlorinated agents for easy rinsing.

BRIGHT G has a high sanitizing action as well as a high power to remove persistent stains, like coffee and tea stains.

BRIGHT G is used to clean glasses, cups, and flatware.

It can be used in water with a hardness up to 300 mg/L as CaCO<sub>3</sub>.



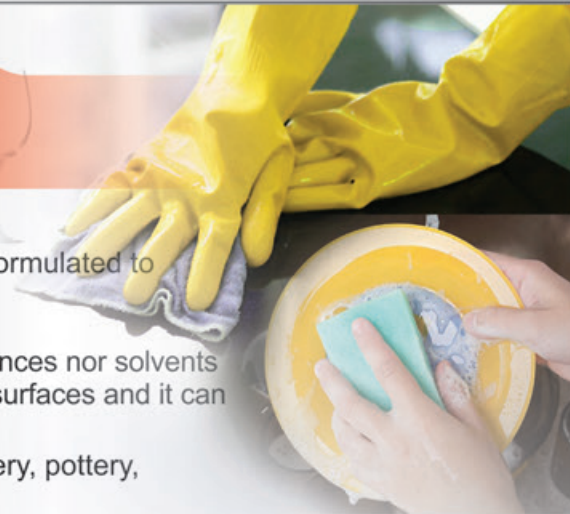


## 10 DISHINE HAND DISHWASHING CONCENTRATED DETERGENT

DISHINE is a concentrated viscous lemon scented detergent formulated to obtain a strong emulsifying action toward greases.

DISHINE is a neutral liquid and does not contain alkaline substances nor solvents so it may be used in the food industry. It does not leave greasy surfaces and it can be easily rinsed without leaving stains.

DISHINE is recommended for hand degreasing of dishes, cutlery, pottery, vessels, kitchen tops, equipment...



## 11 RINSEOUT ACID-BASED RINSE ADDITIVE FOR GLASS WASHERS

RINSEOUT is a concentrated product developed as an additive for the final rinse cycle of the glass washers. RINSEOUT is an acid-based detergent with surfactants and adjuvants, with strong anti-foaming features to be used in all those cases where a quick drying of glasses, cups, etc. at the end of the washing cycle is required.

Particularly suitable for use with hard waters\*.



## 12 CLEANAID CONCENTRATED RINSE AID

CLEANAID is a concentrated, blue liquid to be used in a dishwashing machine during final rinsing, especially if stains appear because of hard water.

CLEANAID contains low-foam surfactants, softening components and highly concentrated rinsing agents.



## 13 OVENICE DEGREASER FOR SELF-CLEANING OVENS

### PRODUCT FOR PROFESSIONAL USE ONLY

OVENICE is an alkaline, concentrated degreaser for ovens with automatic cleaning systems. OVENICE may be used for the cleaning of the interior of the oven when hot or cold at the same time, prolonging the life time of the oven.

OVENICE removes stubborn stains including burned grease during a single cycle and it can be used with all the self-cleaning and conventional ovens.



## 14 OVENICE TAB DETERGENT & SANITIZING POWDER TABLET FOR SELF-CLEANING OVENS

It is a caustic formulation studied for the cleaning phase inside the professional self-cleaning ovens.

It has an energetic decarbonizing action on cooking residues and integrates the cleaning action with the disinfectant one by destroying odors and bacteria.

The tablet must be dissolved in an appropriate way so that it can be effective on the treated areas. For this reason it is recommended a water temperature of at least 85°C to complete its phase of dissolution.



## 15 CARBOFF PLUS LIQUID DEGREASER DETERGENT FOR OVENS AND GRILLS

CARBOFF PLUS is a liquid detergent formulated to manually remove cooking residuals of sauces, oils, etc. from ovens or grills. It has an effective cleaning and descaling action.

### CHARACTERISTICS:

- ☛ Clear, slightly viscose liquid
- ☛ NON flammable
- ☛ Easy to rinse
- ☛ Completely biodegradable
- ☛ Caustic

Suitable to clean OVENS, GRILLS, HOT PLATES etc.  
It removes dirt and eliminates bad odours.





## 16 FRYFIX TAB CLEANING TABLETS FOR PROFESSIONAL FRYERS

Cleaning tablets for degreasing and decarbonizing professional fryers and baskets for deep fryers with surfaces in stainless steel.

FRYFIX TAB quickly removes oils and carbonized grease from the fryer surface leaving it cleaned and sanitized.

The sanitizing action avoid the bad odors deposit caused by the bacterial action.

Use it periodically to obtain a stronger action.

It is safe on iron, steel, stainless steel, bronze, copper.

Do not use on aluminum parts.



## 17 SANTEX DEODORANT, CLEANER & SANITIZER NOT SCENTED

SANTEX is a cleaning, sanitizing and deodorizing agent. SANTEX destroys the source of many annoying odors leaving the air cleaned and safe on all surfaces not in contact with water.

SANTEX can be used on all hard surfaces, equipment of the workplace, in hospitals, restaurants, canteens, schools, factories, food industries, etc. SANTEX removes in depth, quick and safe, all kinds of dirt, grease, sand, soap deposits and stains and is effective in both hot and cold hard water.



## 18 SHINEX CONCENTRATED DEGREASER, WITH SANITIZING ACTION

SHINEX is a water based, NTA free, super-concentrated, strong degreaser for general purpose application. SHINEX has a pleasant smell, is non-flammable and combines the cleaning and sanitizing action producing a limited amount of foam.

SHINEX may be used to clean and sanitize all equipment, Plexiglas, unpainted and painted surfaces, and metals, including steel aluminum and in particular stainless steel.

SHINEX is specially developed for use in restaurants, public places, communities, hotels, schools, shelters, etc.

SHINEX removes dirt, dust, oily films, grease, light carbon deposits.

Well rinsed it does not leave scratches, stains or deposits on the surfaces.

Mixed with water disposal and discharge problems are minimized.





## 19 CIDE BROAD-SPECTRUM SELF-DRYING SURFACE SANITIZER FOR THE FOOD INDUSTRY

CIDE is a liquid formula with quick evaporation to sanitize surfaces and machinery in the food industry. It does not require rinsing.

It is used on surfaces and machinery that have been previously cleaned, but for different reasons have not been used for some time. For example: after a vigorous evening cleaning, it can be used the day after before the first shift starts. It is formulated with multiple active principles working against a big number of microorganisms, pathogen bacteria and not, gram-positive and gram-negative, yeasts, mould/mildew, and its effect is unaffected even when organic dirt is present on the surfaces.

It can be used in the food and beverage industry, as well as for community and common-living areas, in the medical/hospital sector, in farming and industrial areas, in order to sanitize surfaces and machinery such as filling machines, ovens, etc. It can be used on stainless steel, aluminum alloys, copper alloys, nylon, plastic materials, tiled surfaces, cement.



## 20 BURNISH CONCENTRATED LIQUID DETERGENT

BURNISH is a liquid alkaline detergent with controlled foam formation. Safe on all well-set painted and unpainted surfaces as well as on metals, many plastics like melamine, artificial leather, Plexiglas, etc. Easy to rinse and no residues or stripes deriving from water hardness.

BURNISH removes dirt, dust, protective oily film greases, light carbon residues, smog from transportation vehicles, working machine exterior structures, general containers, aluminum panels etc.



## 21 GLAZER - RA SPRAY POLISHING DETERGENT FOR STAINLESS STEEL

GLAZER is an anti-static spray that is particularly suitable to clean stainless steel but it can also be successfully used on plastic, formica, porcelain, chromium-plated aluminium and silver substrates.

GLAZER is suitable for cleaning and polishing kitchens, refrigerators, doors and interiors of elevators.





## 22 GLEAM DETERGENT FOR GLASS AND CRYSTAL SURFACES

GLEAM is a liquid alcohol-based detergent developed to clean glass and crystal surfaces that can also be used on steel, stainless steel, painted and laminated surfaces etc.

GLEAM is also used to clean ceramic and lead marble floors and similar surfaces when they are not particularly dirty and a cleaning action without rinsing is required. At the same time it gives back the shiny aspect to the treated surface.

GLEAM eliminates traces of grease, oil, atmospheric dirt, dust, light soot spots, etc.

GLEAM is NOT flammable and has a pleasant smell.

GLEAM evaporates fast. It contains special components to prevent the re-accumulation of dirt and to remove stubborn dirt.



## 23 FRESH HAND LIQUID SCENTED HAND SOAP

FRESH HAND is a liquid hand wash soap containing a mixture of surfactants, and softeners to condition the skin, ensuring clean and protected hands. It is a neutral product and can be used repeatedly without drying effects on the skin.

FRESH HAND can be used with dispensers to avoid the hygienic handling of promiscuous soap.

FRESH HAND is suitable for restaurants, fast foods, hotels, bars, offices. It is a viscous liquid, pearly white, pleasantly scented.



## 24 CLEAN HAND SANITIZING LIQUID HAND SOAP

It is liquid hand wash soap with sanitizing action formulated with a calibrated mixture of surfactants, softeners and conditioning the skin, which ensures clean hands and protect them.

It is a neutral product and can be used repeatedly without drying effects on the skin.

It is a viscous liquid, a neutral colored, not scented.

It is used in the Kitchens, Hospitals, and Communities.

It can be used with dispensers that exceed the problem of hygienic handling of promiscuous soap.





## 25 DETROGEL SANITIZING GEL FOR HANDS

The product is used for fast sanitizing and safe washing hands without rinsing. The product is ready to Use. Spray the product on your hands, rub thoroughly and let dry without rinsing. The above operation ensures a high level of hygiene.



## 26 COFFEE CLEAN DETERGENT AND DESCALER FOR COFFEE MACHINE FILTERS

PRODUCT FOR PROFESSIONAL USE ONLY

Detergent powder with descaling action designed to remove organic and limestone residuals from coffee machine filters.



## 27 SCALEOFF INHIBITED DESCALER – DEOXIDIZER

SCALEOFF is a light pink coloured acid liquid, containing inhibitors which prevent the solution from attacking the substrates. It is developed for the removal of calcareous scales

SCALEOFF can be used as a deoxidizer without prior cleaning/degreasing except in case of tenacious grease deposits.

SCALEOFF maintains the operation of dissipating equipment, it removes scale from radiators and at the same time deoxidizes metallic surfaces. It can be used by immersion or recirculation, also in vapour generators even at high temperature.

SCALEOFF is far less corrosive on steel, brass, copper and the majority of metals compared with muriatic acid and other acid normally used in de-scalers.

After SCALEOFF operation parts must be rinsed.





## 28 SCALEOFF GEL DESCALER, DETERGENT, SANITIZER

It is a viscous and scented product with a triple-action:

- Detergent
- Sanitizing
- Descaling

Formulated to meet with cleaning needs in the toilets of communities public areas, food industries etc., offices to simplify maintenance operations.

It is formulated with buffered acids, surfactants and calibrated sanitizers specifically active towards a broad spectrum of bacteria.

With one step, ACCICAL removes limescale residues, mineral stains, dirt, grease, etc.. and destroys the bacteria that lurk in the dirt.

It is used to clean and descale ceramic, porcelain, glass of toilets and can be used on stainless steel, chrome parts, aluminum parts, showers, etc.



## 29 DRAIN CLEANER CAUSTIC DRAIN UNCLOGGER

It is a product to unblock obstructed drains of any shape, size or material.

It attacks, dissolves, removes and completely cleans drains from grease, organic deposit, cloths, soap residua, paper residua and many other type of problematic obstructions, reinstating the normal flux of drain liquids.

It's enough to pour the necessary quantity in the drain, following directions and precautions here described.

It is a caustic liquid, with strongly alkaline PH that contains activators and detergents to increase its unclogging speed.

It doesn't in any way damage tubes, connectors, and steel, copper, PVC or rubber accessories that are present in the equipment.

It is very easy to use.





# Aircraft Interior Materials







## B.I.C. AIRCRAFT DIVISION

B.I.C.-Carpets (Belgian International Carpets) was established in 1956. Our Aircraft Division, has been manufacturing aircraft carpets for over 40 years for civil and commercial aviation.

With different looms available, we can produce a wide range of high quality aircraft carpets.

All qualities meet the FAA/FAR directions as well as ABD 0031/BMS 7238/39 standards.

Our qualities are made of the finest wool including a Bekinox anti static fiber to reduce the electrostatic charge.

The recognition for these important basic values was ensured when the company obtained the EN 9100/AS 9100 certificate, a quality label that gives the company's employees recognition for their design, development, production and sales skills.

The production includes both 1,2 and 3 frame looppile products and also cut and loop various constructions.

Normal standard carpets with even and / or stranded threads are made as well.

B.I.C.-carpets has advanced CAD design facilities, so the customer gets exclusive pattern, colours and carpets.

## Discover our range of ultra light weight carpet

[A new ultra lightweight carpet is being introduced.](#)

B.I.C.- Carpets sets the first steps with a revolutionary carpet. This carpet boast a significant difference in weight compared to standard carpet. "The ultra lightweight carpet is 1050 grammes per square metre compared to 1800 for standard carpet".

B.I.C. is aware of the tough competition and has stepped up the game and made the carpets look different to traditional ones and increased the strength and durability of its products.

"We have run methods of testing for burning behaviour, anti static, colour and surface appearance to determine changes in appearance of textile floor coverings. "We found besides ultra light weight coverings, which are non - carpet, our carpets can deal with tough stains as well as absorb dirt and dust.

We have worked hard in developing these new programs and look to help airlines that care about fuel burning savings and that focus on cost efficiency.

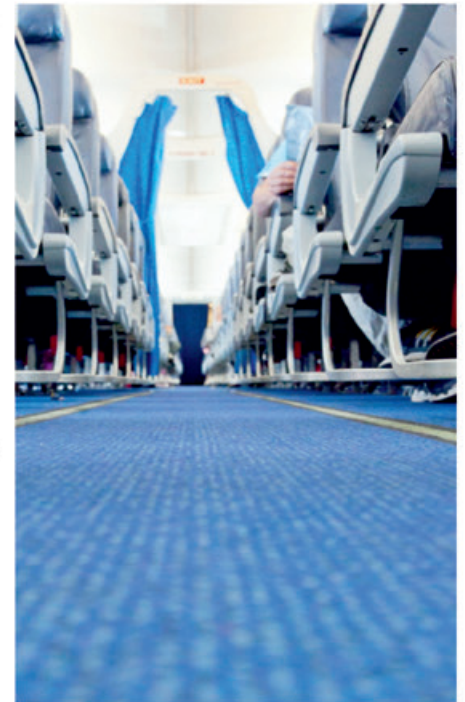
By using Bic Ultra Light Weight carpet will airlines not only save money on fuel but also on the cost of purchasing carpet:

1. Fuel saving cost: The weight reduction of the Bic carpet compared to the average aviation carpet is 700 gr/ m2.

Considering that every kg cost about €120 in fuel per year will the Bic carpet result in the following fuel savings per year : B737 / A320 : +/- 104 sq/m2 of carpet x 0,7 kg weight saving x €100 = € 7.280 per aircraft per year in fuel savings.

2. Savings in carpet cost: The Bic Ultra Light Weight carpet is about 25 % cheaper compared to traditional aviation carpet.

B.I.C. Carpets is an EN 9100 certified company.



### Certificates

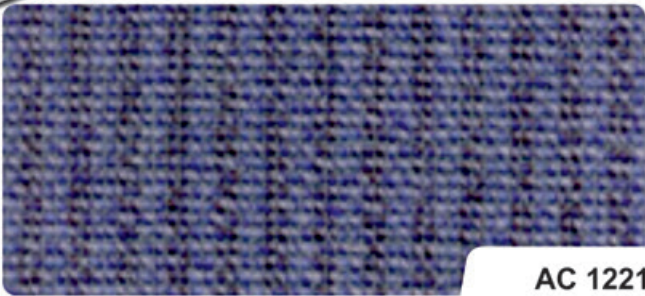
It's very important to invest in Quality Management and Quality Control.

At B.I.C.-Carpets we invest a lot in continuous research.

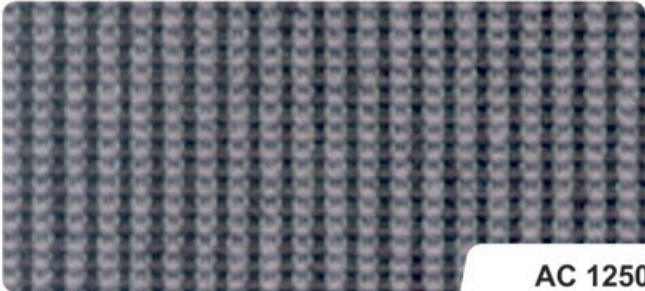
We're very proud to announce that B.I.C.-Carpets holds the EN 9100/AS 9100 certificate.







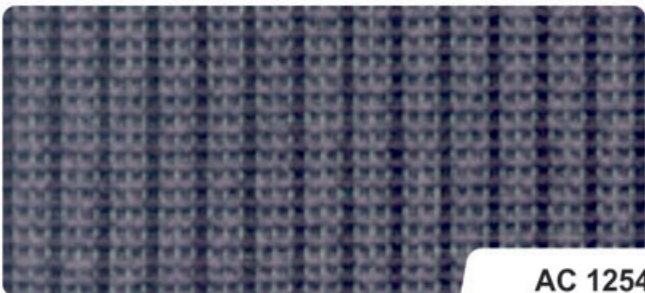
AC 1221



AC 1250



AC 1242



AC 1254

Technical data

**Pile composition**

100 % new virgin wool and antistatic fibres

**Backing**

synthetic latex, flame retardant

Pile weight : ± 430 g/sqm ISO 8543-EN 1307

Total weight : ± 1050 g/sqm ISO 8543-EN 1307

Pile height ± : 1,5 mm ISO 1766

Total height : ± 3 mm ISO 1765

Knots : ± 89.600/sqm ISO 1763

Construction: 1-frame carpet ISO 2424

**Burning behaviour**

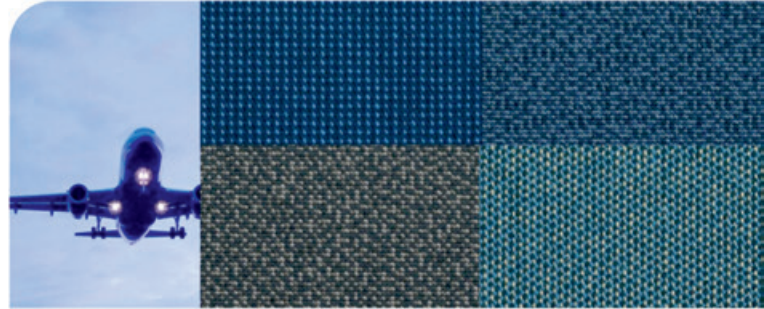
FAR 25.853(a) App.F part I (a)(1)(ii) : last issue

**Electrostatic behaviour** < 2 kV ISO 6356

**Dimension stability** <=± 0,5% ISO 2551

164

Standard width 400 cm or 200 Cm ISO 3018



**High Quality Aircraft Carpets**

Extra durability resulting in fewer changes of carpet in the cabin.

These products are developed with special attention to durability, design and color to ensure a top quality carpet.

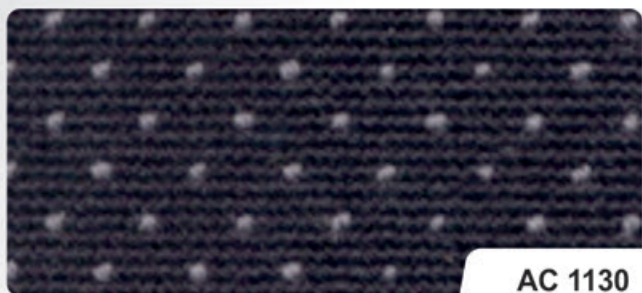
We made the carpet stronger without increasing the total weight of the product.

Airlines will make considerable savings because they need less carpet to purchase and to install.

Furthermore will there be less carpet to dispose of and will more passengers enjoy a clean and nice carpet.



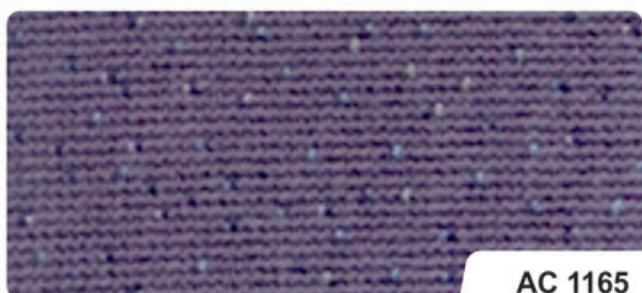




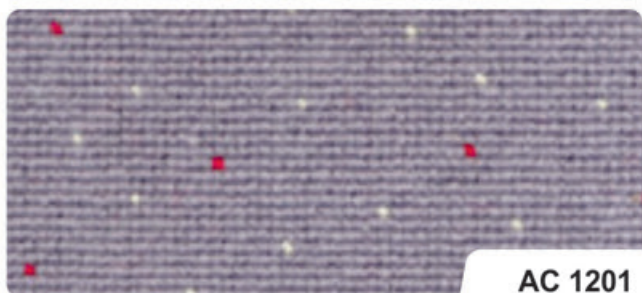
AC 1130



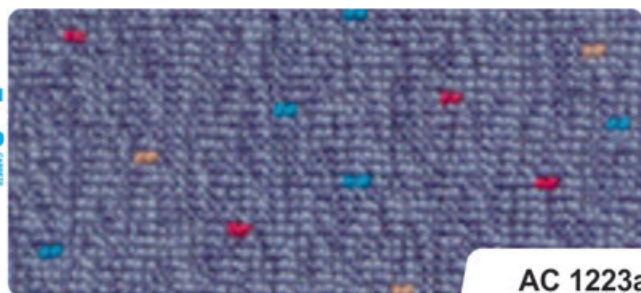
AC 1154



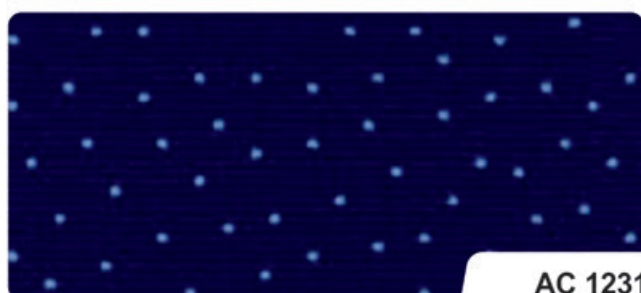
AC 1165



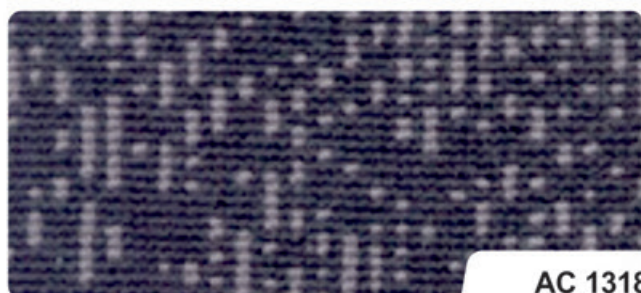
AC 1201



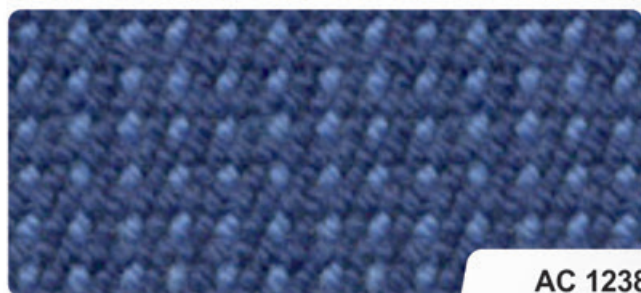
AC 1223a



AC 1231



AC 1318



AC 1238

Bic

Technical data

**Pile composition**

100 % new virgin wool and antistatic fibres

**Backing**

synthetic latex, flame retardant

Pile weight : ± 977 g/sqm ISO 8543-EN 1307

Total weight : ± 1600 g/sqm ISO 8543-EN 1307

Pile height ± ± 2 mm ISO 1766

Total height : ± 4 mm ISO 1765

Knots : ± 102.400/sqm ISO 1763

Construction: 2-frame woven carpet ISO 2424

**Burning behaviour**

FAR 25.853(a) App.F part I (a)(1)(ii) : last issue

Electrostatic behaviour < 2 kV ISO 6356

Dimension stability <=± 0,5% ISO 2551

Standard width 200cm ISO 3018

Technical data

**Pile composition**

80% virgin wool and 20 % nylon and antistatic fibres

**Backing**

PES/cotton + synthetic latex, flame retardant

Pile weight : +/- 1100 g/m<sup>2</sup> ISO 8543-EN 1307

Total weight : +/- 1860 g/m<sup>2</sup> ISO 8543-EN 1307

Pile height ± +/- 3.0 mm ISO 1766

Total height : +/- 5.0 mm ISO 1765

Knots : +/- 128.000/m<sup>2</sup> ISO 1763

Construction: 2-frame woven carpet ISO 2424

**Burning behaviour**

FAR 25.853(a) App.F part I (a)(1)(ii) : last issue

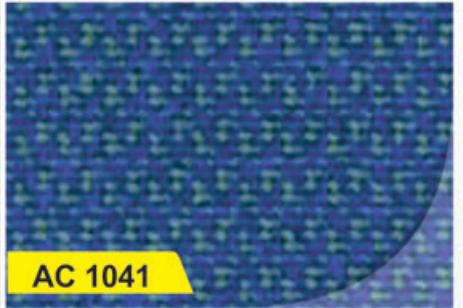
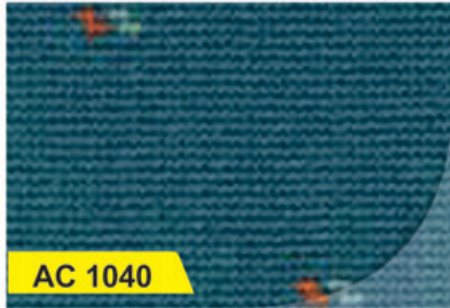
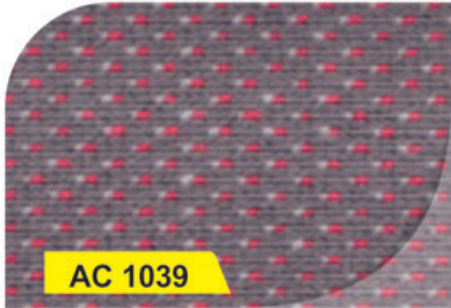
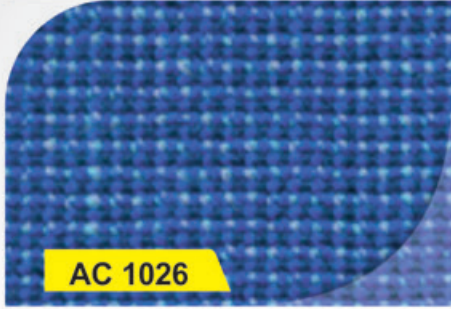
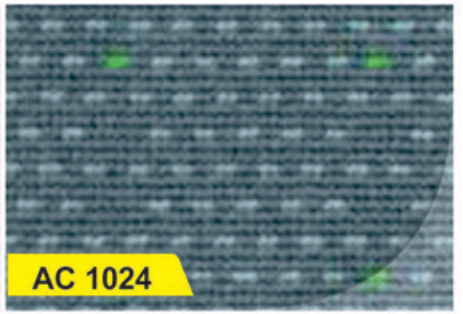
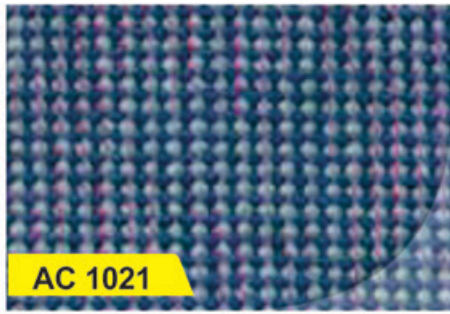
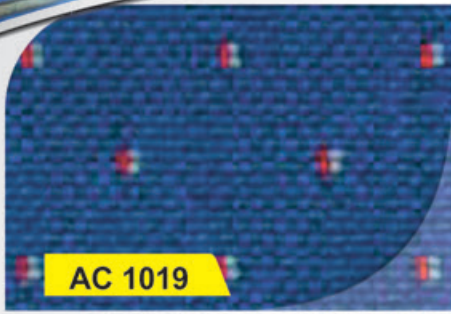
Electrostatic behaviour < 2 kV ISO 6356

Dimension stability <=± 0,5% ISO 2551

Standard width 200cm ISO 3018

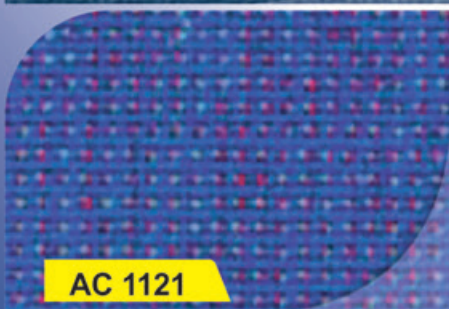
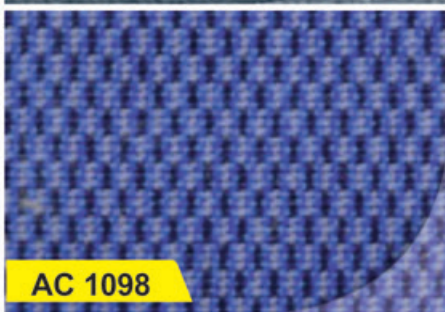
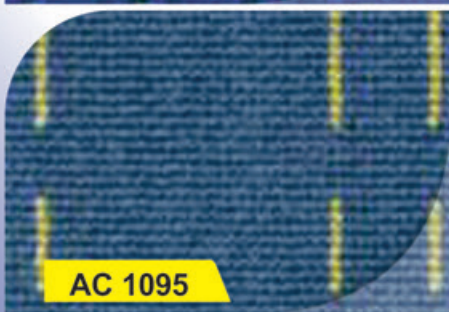
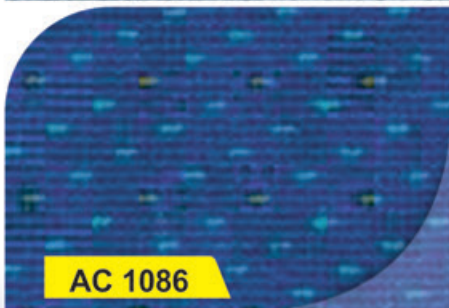
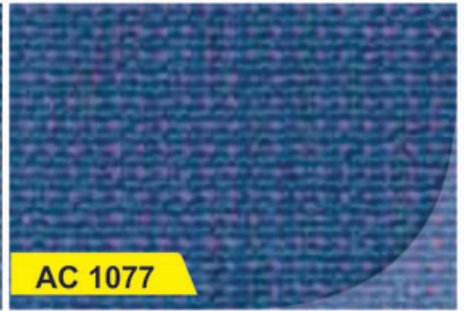
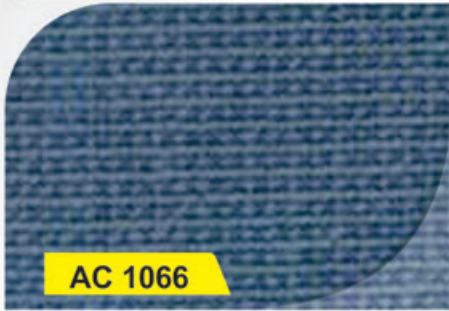
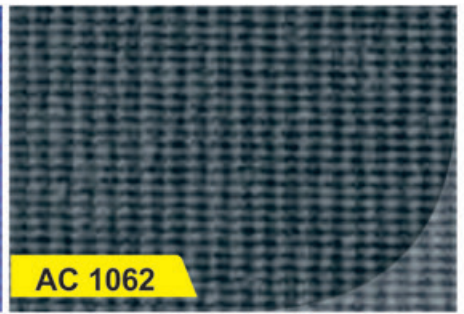
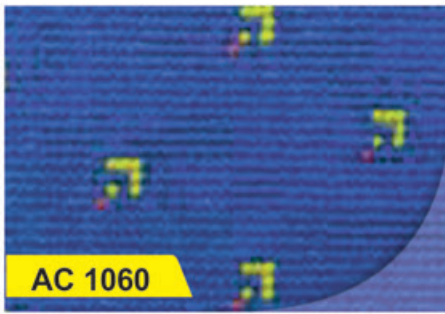
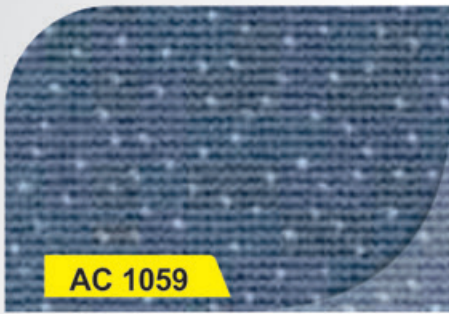
ABD 0031 smoke density toxic components (on request)







# AIRCRAFT CARPETS







AC 1131



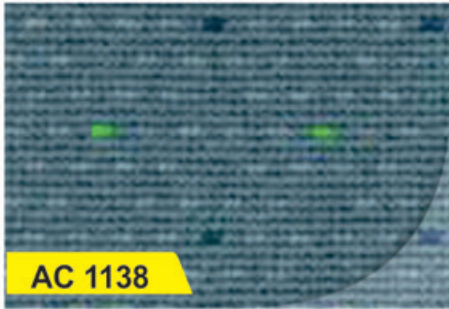
AC 1132



AC 1135



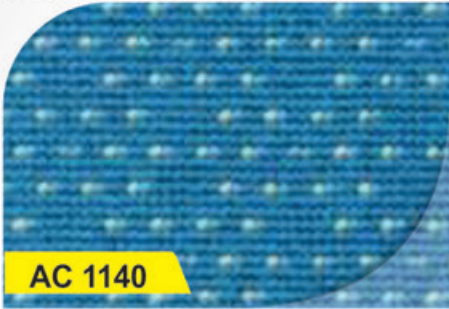
AC 1136



AC 1138



AC 1139



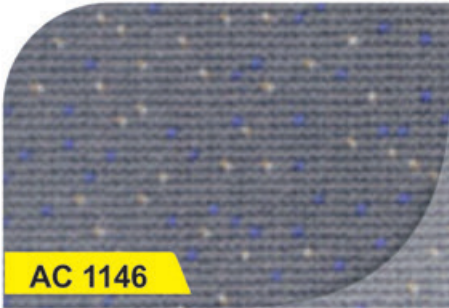
AC 1140



AC 1141



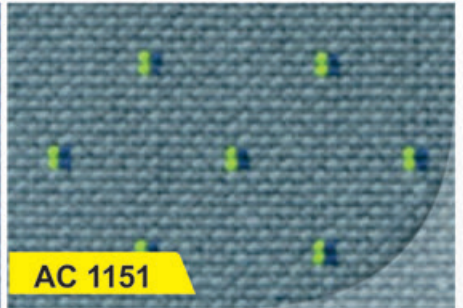
AC 1142



AC 1146



AC 1147



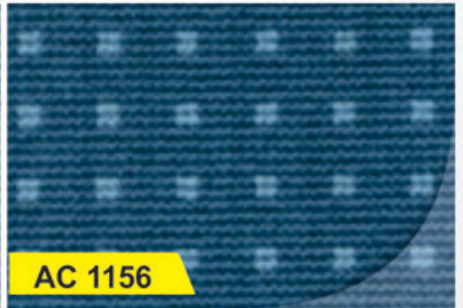
AC 1151



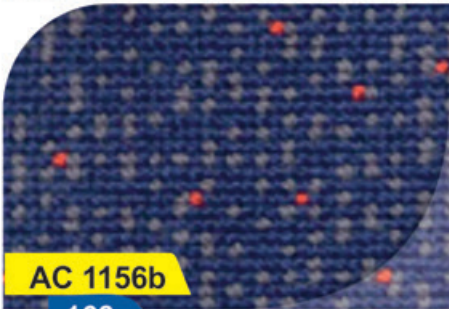
AC 1153



AC 1154



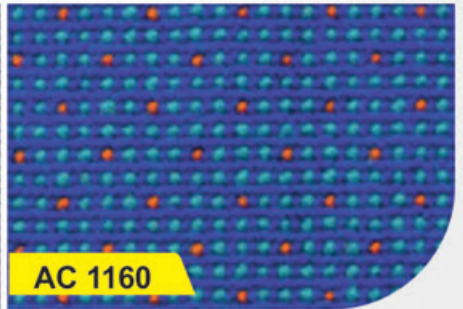
AC 1156



AC 1156b



AC 1158

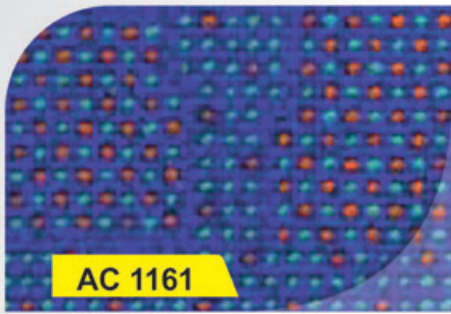


AC 1160

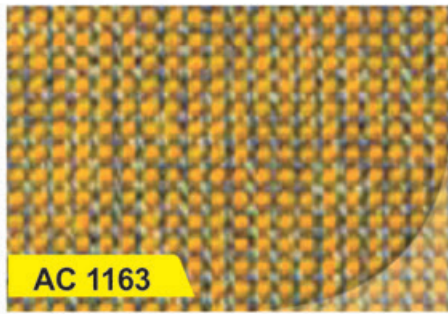




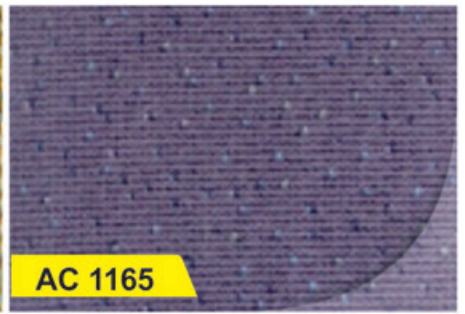
# AIRCRAFT CARPETS



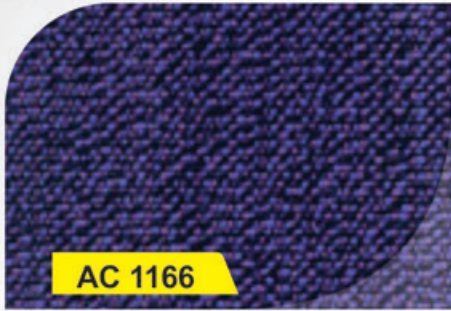
AC 1161



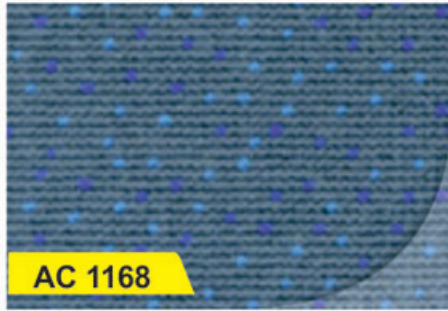
AC 1163



AC 1165



AC 1166



AC 1168



AC 1169



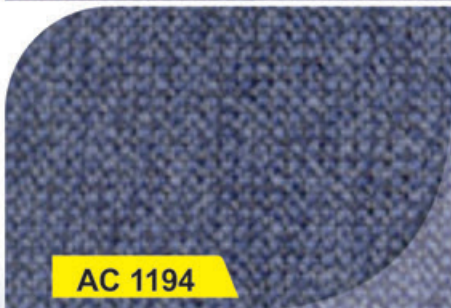
AC 1170



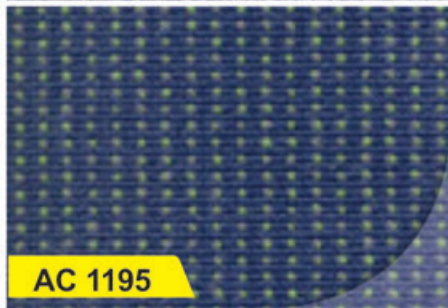
AC 1185



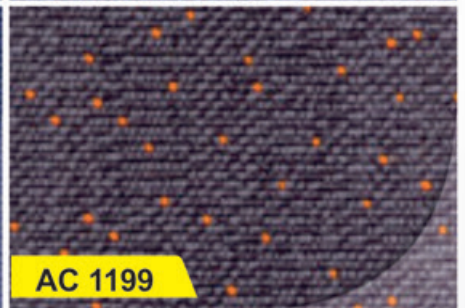
AC 1192



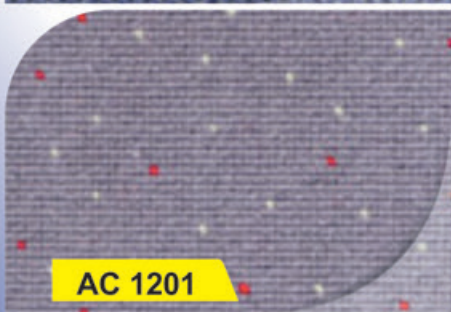
AC 1194



AC 1195



AC 1199



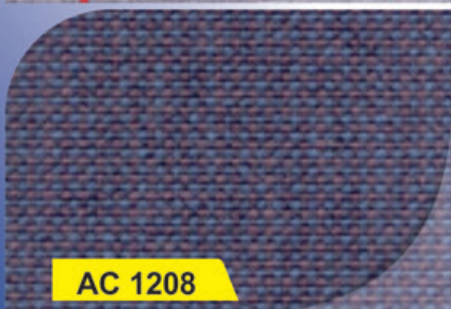
AC 1201



AC 1205



AC 1207



AC 1208



AC 1209



AC 1215





AC 1216



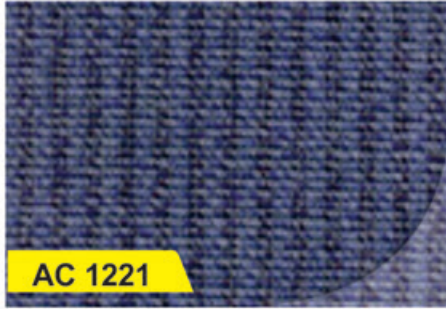
AC 1217



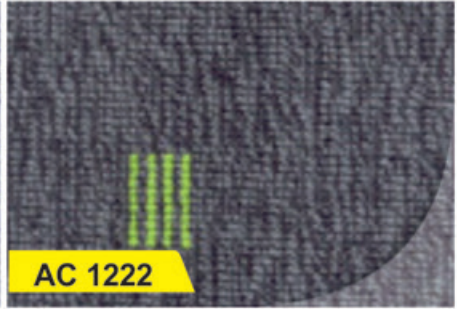
AC 1218



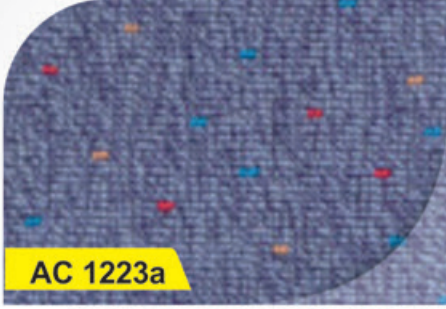
AC 1220



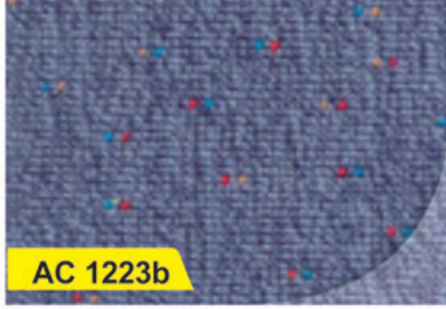
AC 1221



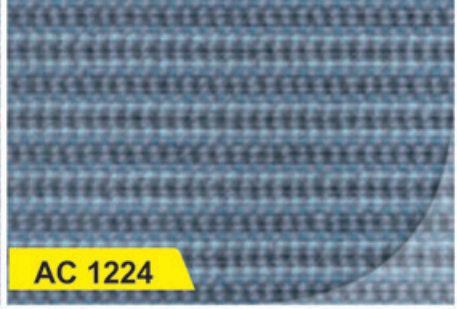
AC 1222



AC 1223a



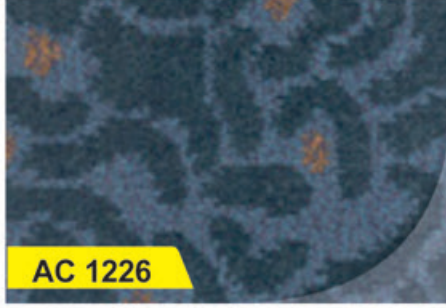
AC 1223b



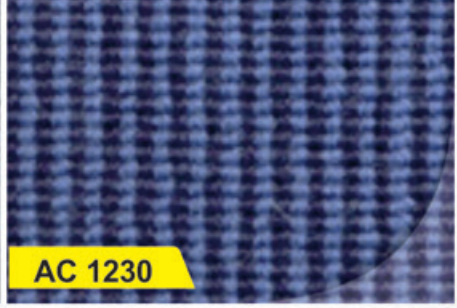
AC 1224



AC 1225



AC 1226



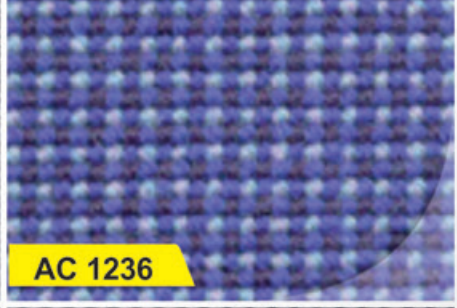
AC 1230



AC 1231



AC 1232



AC 1236



AC 1238

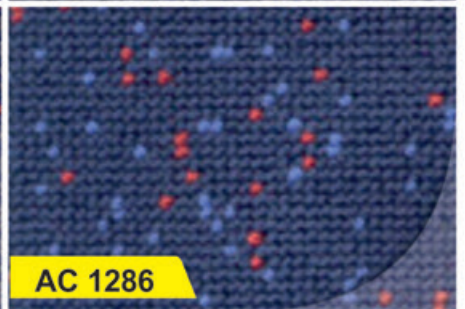
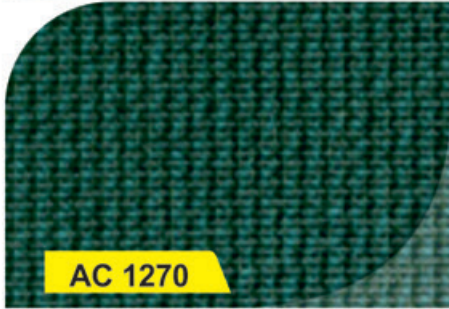
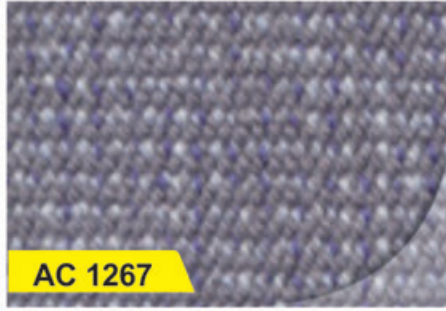
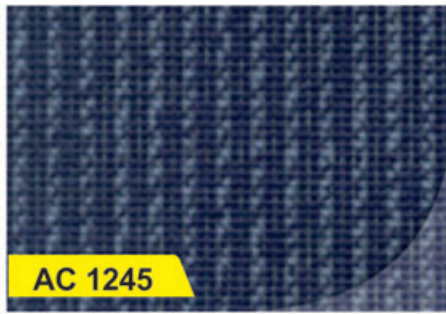
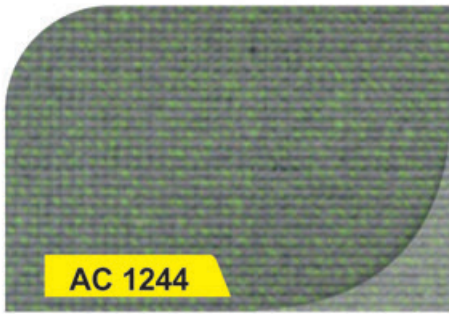


AC 1242



AC 1243





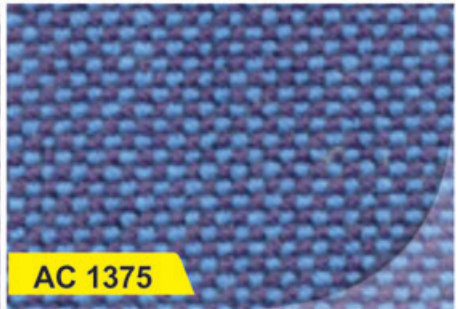




AC 1372



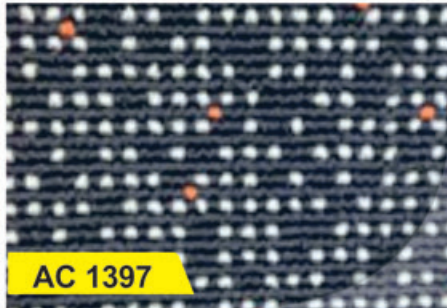
AC 1374



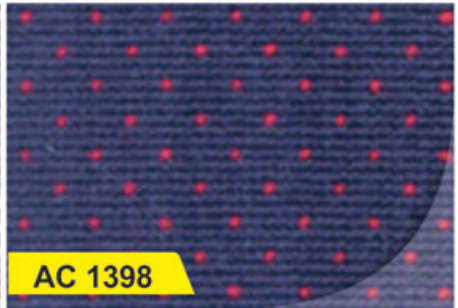
AC 1375



AC 1382



AC 1397



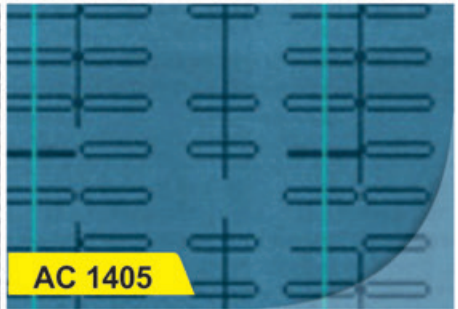
AC 1398



AC 1400



AC 1404



AC 1405



AC 1406



AC 1407



AC 1408



AC 1410



AC 1411



AC 1412

ISO 9001  
BUREAU VERITAS  
Certification





## Testori

Fabrics made in Italy since 1904.

Manufacturer Testori presents an upgraded proposal which offers a comprehensive package of products and services.

- Seat fabrics
- Curtain fabrics
- Headrest/Anti-macassar fabrics
- Nomex wall covering decorative fabrics
- Wilton carpets
- Genuine and synthetic leathers
- Fire barriers and foam protections in a Variety of different materials and forms

Tailor-made services that will fully incorporate the above package are also offered.

Textile items: seat covers, curtains, headrest covers, tailor-made carpets – all manufactured in Part 21G approved unit, providing a complete support for the prototype, fit check and preliminary activities.



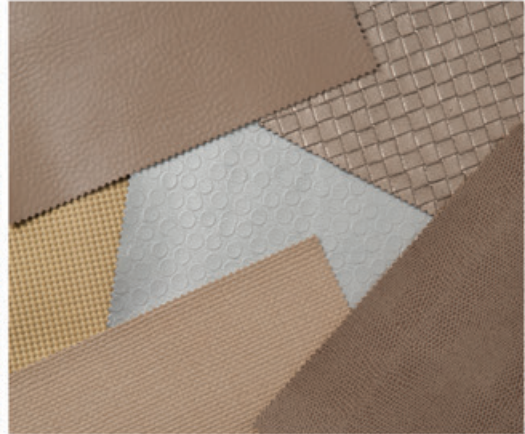


**Testori**

Fabrics made in Italy since 1904.

Product certification from internal laboratory, approved by the Italian aviation authority ENAC.

- Vertical flame test
- Smoke density and toxicity test
- Oil burner combination test.





Testori activities are focused on the development of new products including a range of fire barriers and foam protections.

A variety of products are offered to customer to choose from in order to satisfy their production and technical requirements.

Those products differ in terms of:

- Production technique: woven products, felts, stretch fabrics and scrims
- Composition: Nomex, Kevlar, meta/para-aramid and FR cotton
- Use: lamination with decorative materials, bonding and sewing
- Weight: from ultra-lightweight to standard weight materials (range: 80 to 400 grs/sqmt)

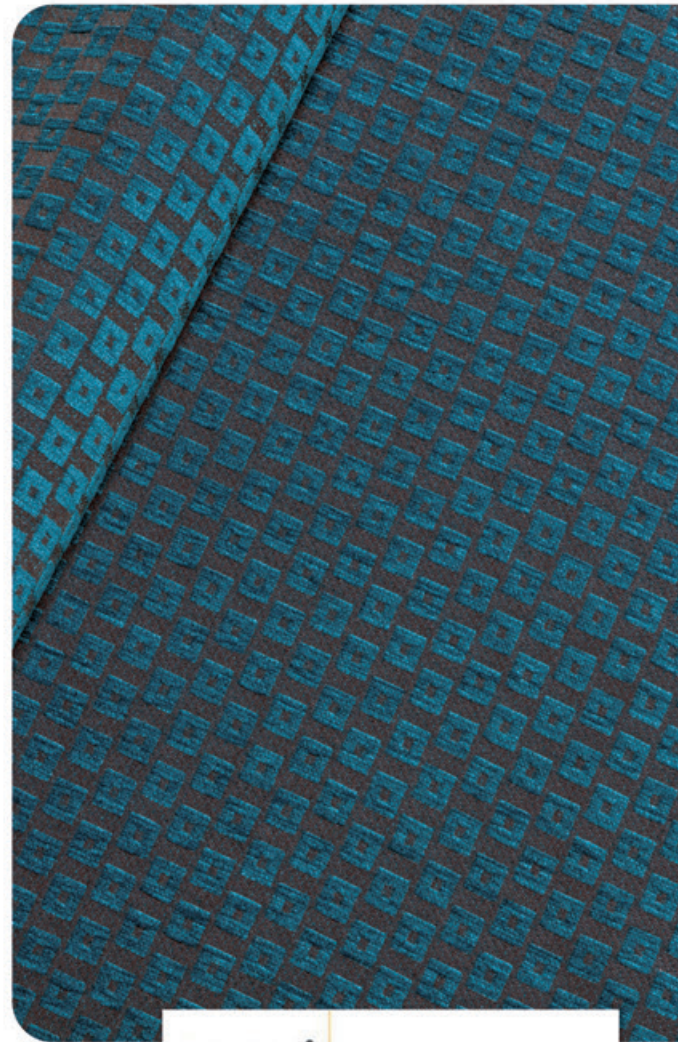
An innovative lightweight carpet made of 100% ECONYL® loop which is a fully upcycled nylon yarn is also provided.

This product combines eco-compatible features together with durable materials resulting in a total weight of 1200 grs/sqmt.

PU faux leather which is fully compliant with the aviation specifications is developed as well.

The product is available in a range of different colours and can be customised by choosing from a series of surface textures in order to match the appearance of the cabin and harmoniously blend in, with the other furnishings.

The product can also be laminated with fire barriers or foam in order to guarantee seat comfort, while considerably reducing the weight and thickness of the seat cushions.



**Testori**

Fabrics made in Italy since 1904.





**Requirement of Airlines from Suppliers**  
**Requirement of Manufacturers from Distributors**



# CERTIFICATE

Certificate Number: **2980002**

This is to certify that

## **Airchem Consumables FZCO**

HO + Site1: LOB 10, Office # 10F14, 1st Floor,

Jebel Ali Free Zone, Dubai, UAE

Site 2: Airchem Consumables BV

Meer en Duin 311, 2163 HE Lisse, The Netherlands

Site 3: CMS Logistics Warehouse,

Jebel Ali Free Zone, Dubai, UAE

has implemented and maintains a **Quality Management System**  
for its certification structure: **Campus**

Scope : **HO & site 1 at Dubai : Sales, Procurement and Supply of Aircraft  
Chemicals and Consumable Materials.**

**Site 2 at Netherlands : Support services for Sales, Procurement and Supply of  
Aircraft Chemicals and Consumable Materials.**

**Site 3 at CMS Logistics, Dubai : Warehouse**

Through an audit, performed in accordance with the requirements of  
AS 9104/1 issued 2012-01, and including the implementation, meets the requirements  
of the standard:

## **AS 9120B**

(Based on and including ISO 9001:2015)

Quality Management Systems – Requirements for Aviation, Space and Defence  
Distributors.

The file that forms the basis of this certificate: **2980002**

Date of Initial Certification : **August 1, 2018**

Date of Current Revision : **August 1, 2018**

Certification Expiry Date : **July 31, 2021**

*K.G. Garg*

K.G. Garg  
Chairman & Chief Executive  
NVT QUALITY CERTIFICATION PVT. LTD.  
CAP-1, EPIP, Near ITPL,  
Whitefield, Bangalore - 560 066  
India  
website: [www.nvtquality.com](http://www.nvtquality.com)



NVT Quality Certification is accredited under the control of the AQMS standard certification scheme (ICOP). The method of  
operation for quality certification is defined in the NVT Quality Certification General Terms And Conditions For Quality  
Management Systems Certifications. Integral publication of this certificate is allowed.

Note: Please verify current validity of certificate from NVT Quality Certification Pvt. Ltd.,



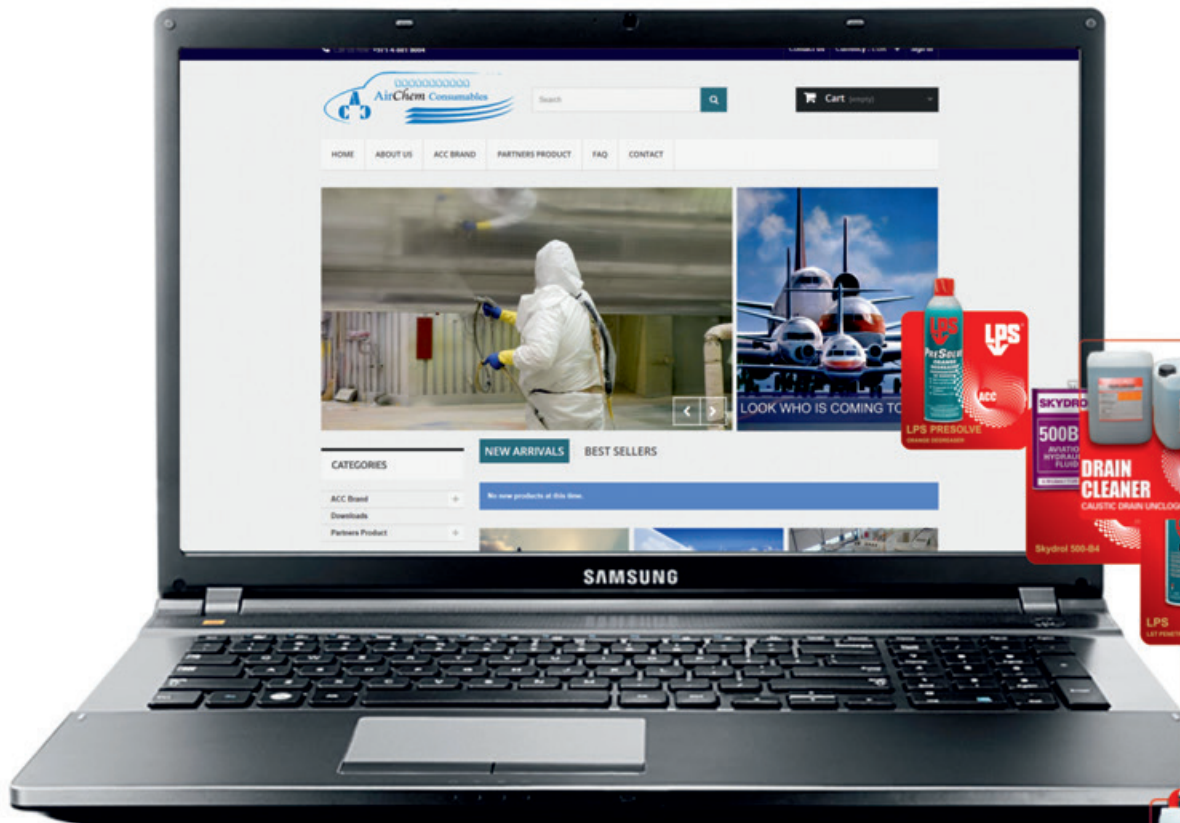
NVT QC

ACC is one of the most comprehensive supply  
center for aviation consumables.  
All brand names ACC carries have the relevant  
OEM, Military, Airline specifications/approvals





More Than Most



SWITCH TO ACC WEB SITE

**AirChem Consumables**



[www.aerospace-acc.com](http://www.aerospace-acc.com)





Over 1000 line items make ACC one of the most comprehensive supplier of aviation after-market product.



Treat your aircraft to a host of environmentally advantaged maintenance chemicals



### AirChem Consumables

Is the Owner of ACC BRAND



### AirChem Consumables

Over 1000 line items make ACC one of the most comprehensive supplier of aviation after-market product. All products meet the relevant OEM, Military or Airline maintenance specification.

### Who are our Principals?

From multinational corporation to small business entities, ACC specializes in improving the export sales of the companies whose products and services are marketed in the following aviation industries:

- Original Equipment Manufactures (OEMs)
- Maintenance Facilities,
- Commercial Airlines
- Airports

## AirChem Consumables

Treat your aircraft to a host of environmentally advantaged maintenance chemicals.



ACC 1100  
Paint stripper AMS 1375B  
In Stock  
156€ In Stock  
Add to cart  
More

ACC 1100  
Condition: New product  
Paint stripper  
AMS 1375B  
Packaging Size: 20.400 x 51.000 (200 Liter)  
156€  
Quantity: 1  
Add to cart  
VISA  
Data Sheet  
More Info  
Download  
TDS ACC 1100  
MSDS ACC 1100

+ TDS  
+ MSDS





AS 9120B:2016 & ISO 9001:2015  
Certified Company

## Application Support & Supply Centers

### AirChem Consumables Dubai

P.O. Box 261503  
LOB10, F12&F14  
JAFZ, Dubai, UAE  
Tel: +971 4 881 8084  
Fax: +971 4 881 6022

[www.aerospace-acc.com](http://www.aerospace-acc.com)  
Email: [airacc@acc.ae](mailto:airacc@acc.ae)

### AirChem Consumables Sharjah

P.O. Box 8994  
Sharjah International Airport  
SAIF Zone, A2-099, Sharjah, UAE  
Tel: +971 6 552 8946  
Fax: +971 6 566 1226

[www.acc.ae](http://www.acc.ae)  
Email: [info@acc.ae](mailto:info@acc.ae)

### AirChem Consumables The Netherlands

P.O. Box 2, 2170 AA  
Sassenheim, The Netherlands  
Meer en Duin 311,  
2163 HE Lisse, The Netherlands  
Tel: +31 252 418 688  
Fax: +31 252 419 330

[www.airchem.eu](http://www.airchem.eu)  
Email: [info@airchem.eu](mailto:info@airchem.eu)

Copyright 2019 Airchem" All rights Reserved"

#### Disclaimer:

Airchem accepts no responsibility whatsoever for the accuracy of what follows in this booklet. This booklet is an example for purpose of illustration only and intended to serve only as a general resource, not as a form or recommendation. Without prejudice to the generality of the foregoing paragraph, Airchem does not represent, warrant, undertake or guarantee that the information in this booklet is correct, accurate, complete or non-misleading. Airchem will not be liable in respect of any special, indirect or consequential loss or damage.

The latest edition supersedes all other previous ones

January 2019 Issue



[https://www.instagram.com/airchem\\_acc/](https://www.instagram.com/airchem_acc/)  
<https://www.linkedin.com/company/airchem-consumables>  
<https://www.facebook.com/airchem/>