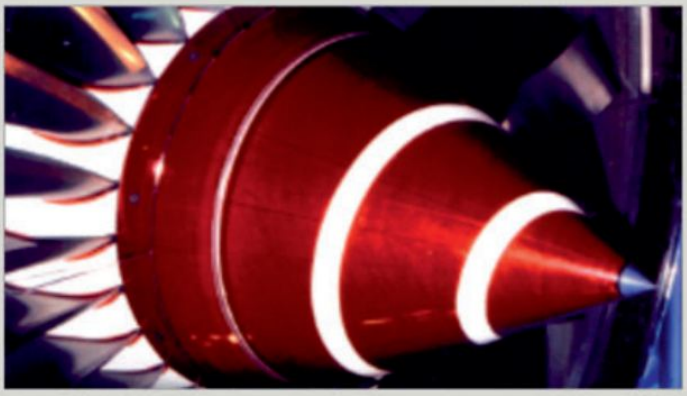


Coating Systems for Composites

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
IP6 Range			
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
Rockhard Range			
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
PL Range			
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
Alpha			
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
IP Range			
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 (Requried 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 Polyiamide	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	Ipcote H/T Sacrificial Coating	1 Litre	MSRR 9140, OMat 7/46B, SMM-903/01, A50TF1, Class E
IP9184-Green	Ipseal H/T Inorganic Green	1 Litre	MSRR 9140, OMat 7/168G, SMM 903/02, A50TF196, Class F
IP9184-Khaki	Ipseal 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
IP9064 Range			
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 Pact 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	5Litre	MSRR 9064, MSRR 1006, OMat 793A, DTD 5555A, Stan 80-161 HCP 355
NML Range			
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
IP3 Range			
IP3-6005	2 Pack Low VOC Dark Blue/Grey	5 Litre	MSRR 9064, Def Stan 80-161, TurbomecaLB568, 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

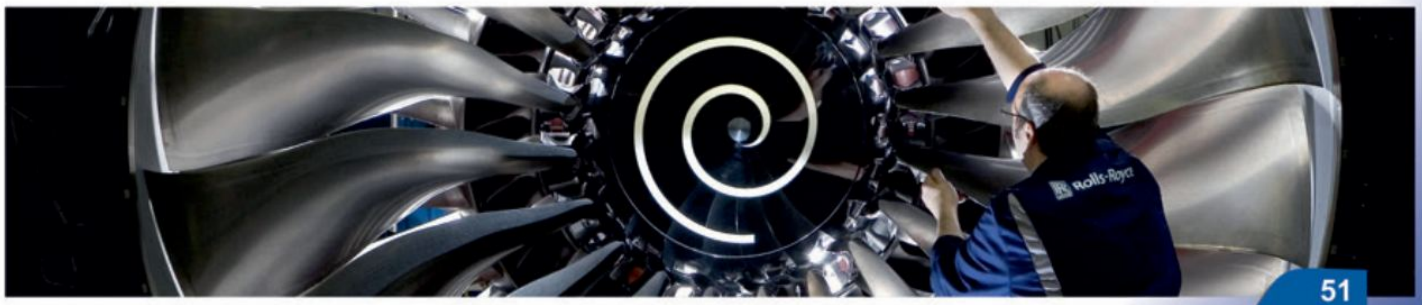
Omat Number	Description	Product Code
Omat 641	Surface Inspection Fluid	NML21

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 isXylene/ 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 PFTE 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	Hi-Solids Epoxy Topcoat- Gloss VOC Compliant
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	EPSG 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
	MIIL-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

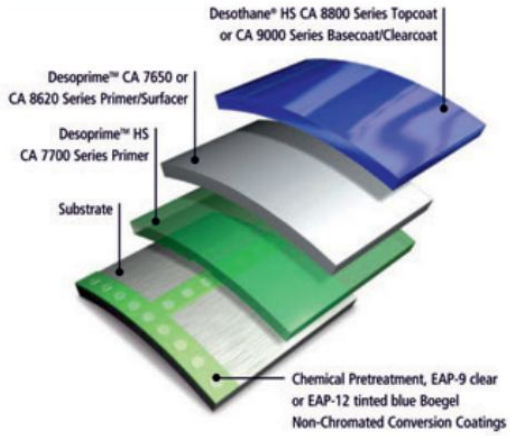


Commercial and General Aviation Coatings

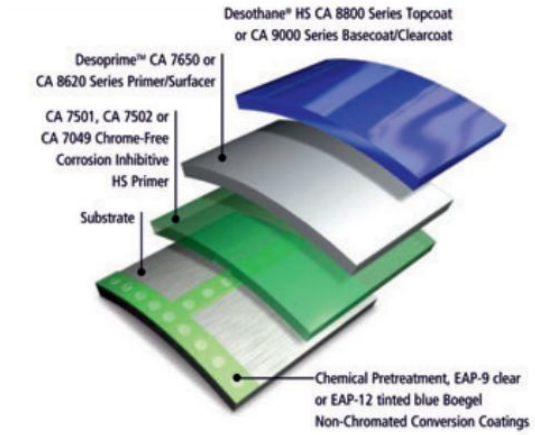
Desothane® Coatings Systems

General Aviation Coating System

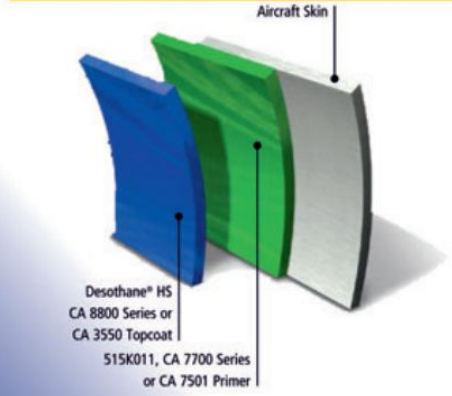
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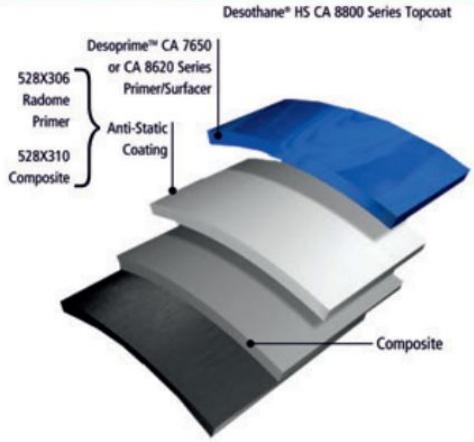
Chrome-Free System



Interior System

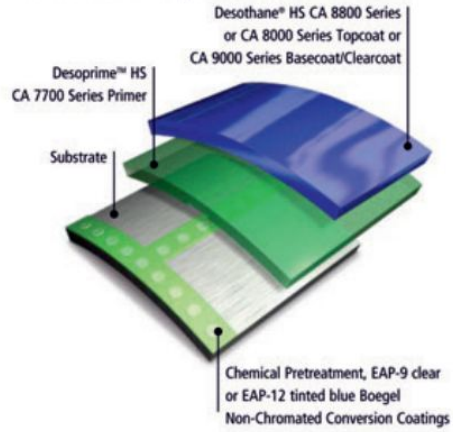


Composite System

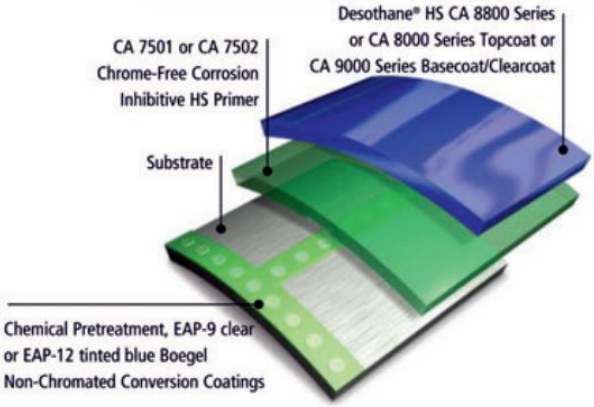


General Aviation Coating System

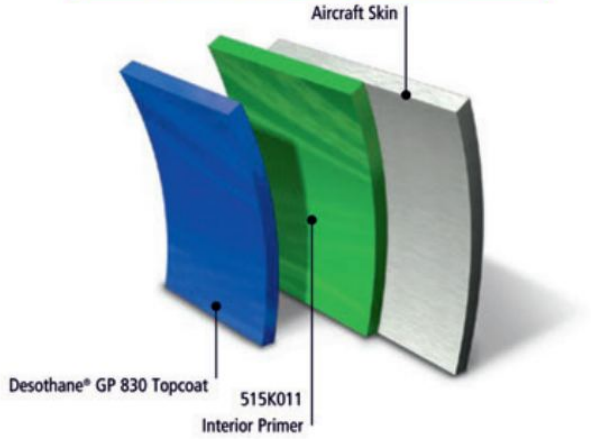
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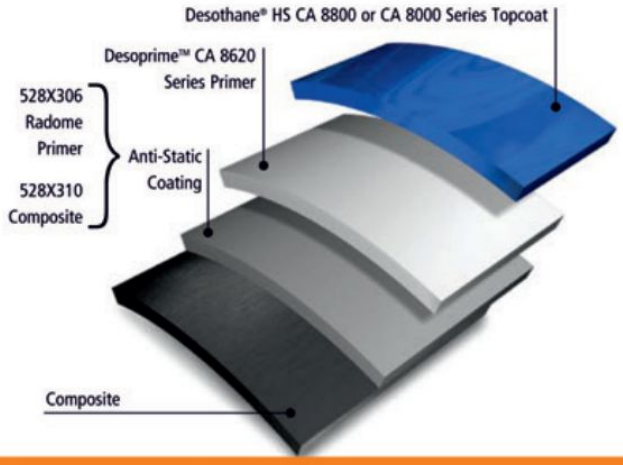
Chrome-Free System



Interior System

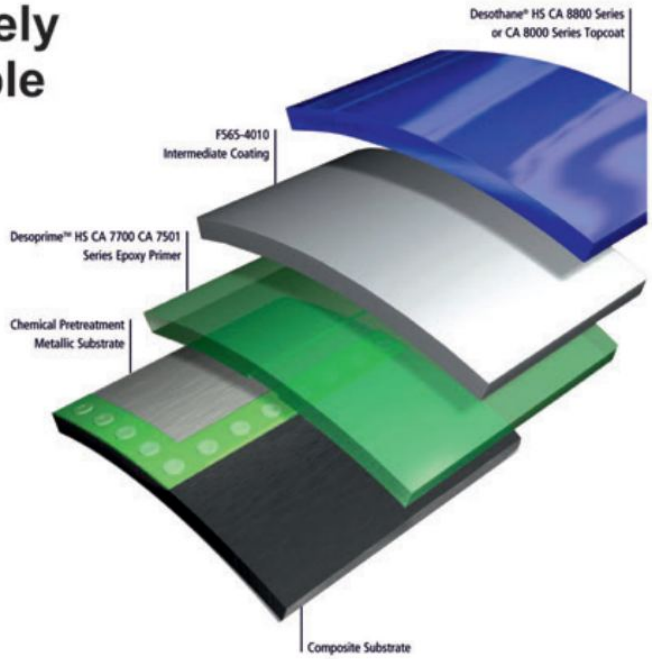


Composite System



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	• ABP 4-2127 • AIMS 04-04-013 • 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 • DMS 2143 • DPM 6456 • GAMPS 3209	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.

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-Surfacer 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	-	-

	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 Surfacer / 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

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**	-	-

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

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, Cl 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, Cl 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	-	-

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 500ºC to 650ºC

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

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, Cl C	VOC Compliant Epoxy Primer
PPG	Deso prime HS CA 7233	MIL-PRF-23377, TY I, Cl 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

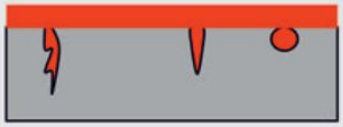
Anti-Static Epoxy Primer

	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

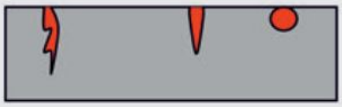
PROCEDURE OF PENETRANT INSPECTION



Pre-cleaning



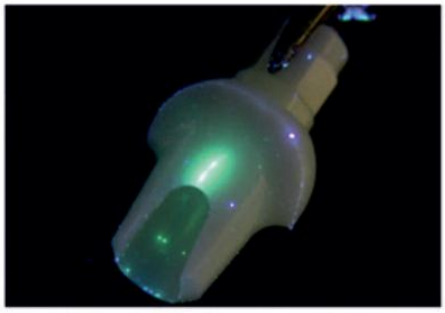
Penetrant application



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

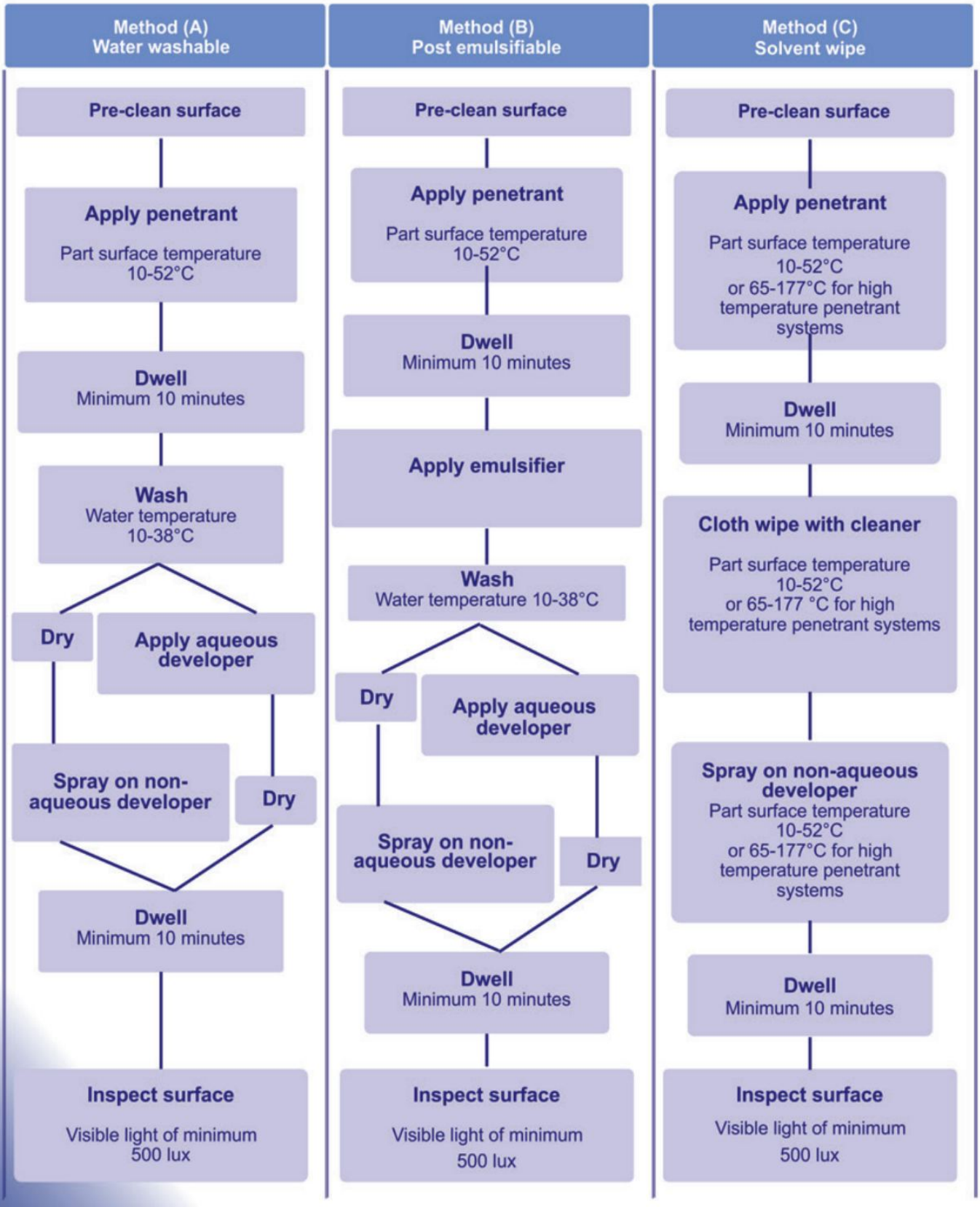
WORK WITH MATERIALS:

- 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°C to +50°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. **Delivery form:** 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. **Delivery form:** 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. **Delivery form:** 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
New! 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. **Delivery form:** 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. **Delivery form:** 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. **Delivery form:** 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.

Delivery form:

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.

Delivery form:

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.

Delivery form:

Spray can 500 ml	Can 10 L	Art.No.121.200.301	Art.No.121.200.303
Can 1 L	Cask 200 L	Art.No.121.200.302	Art.No.121.200.304

Standard-Chek Developer No. 3	NA	NA	Alcohol-based, fine-grained white powder suspension being applied as a homogeneous thin layer. Short drying time

Delivery form:

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



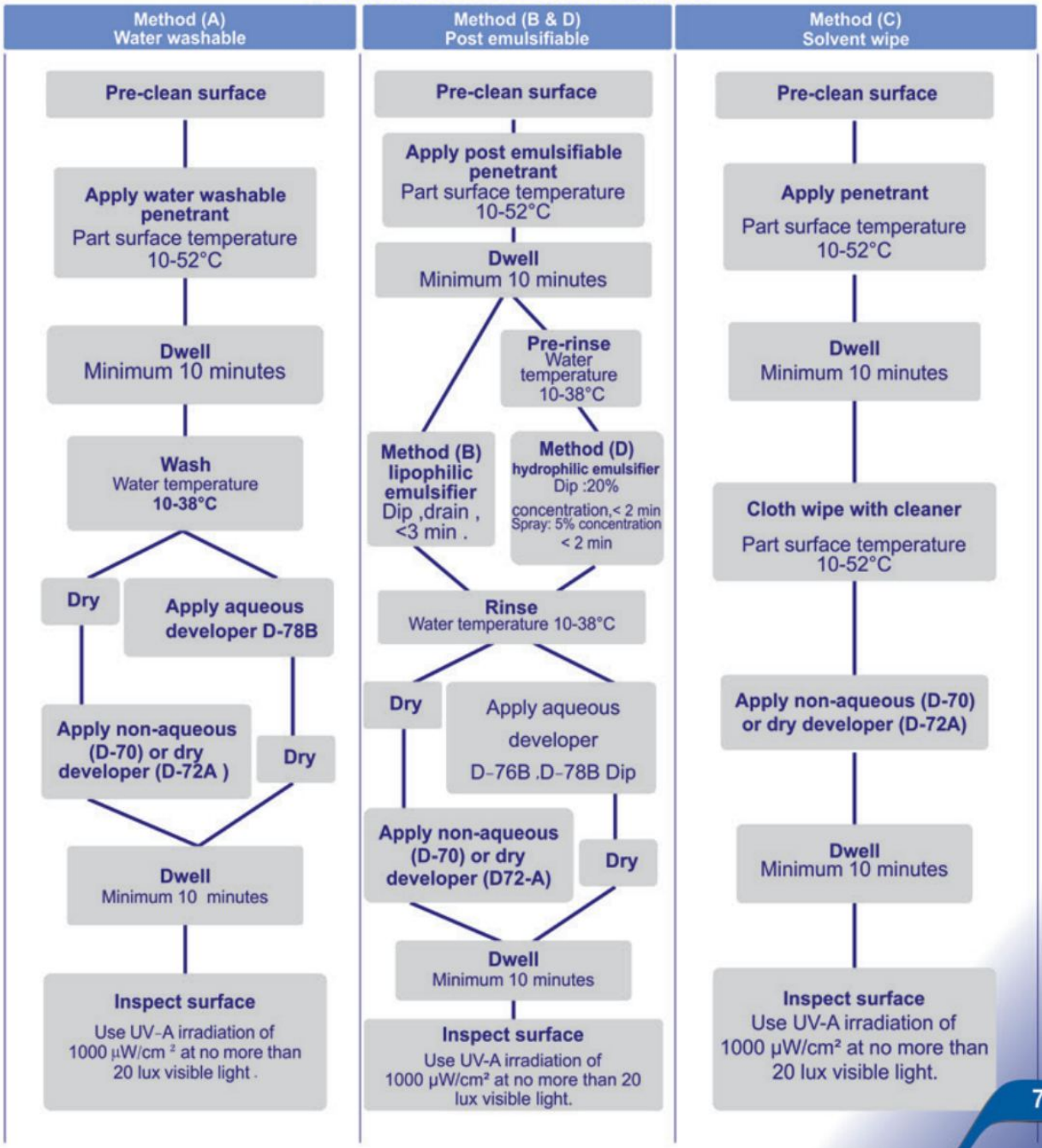
MET-L-CHEK offers a complete line of post emulsifiable and water washable fluorescent penetrants designed to meet the most critical inspection application /Products are available in increments of sensitivity from level ½ to level 4.

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

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 =1000°C;
4. Cool to T = 40°;
5. Dip in a tank with penetrant
6. Water wash
7. Dip in a tank with emulsifier
8. Post water wash;
9. Dry at =60° 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 µm. 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 µm 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 µm.

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 µm thickness of plating respectively. The panels with cracks' depth of 10, 20 and 30 µm 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 µm 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

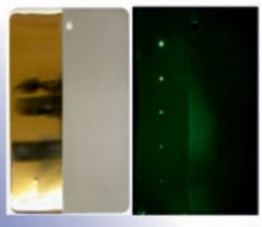
Reference Test Panel No.2 (EN ISO 3452-3)



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 (Ra = 2,5 µm, Ra = 5 µm, Ra = 10 µm and Ra = 15 µm) 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



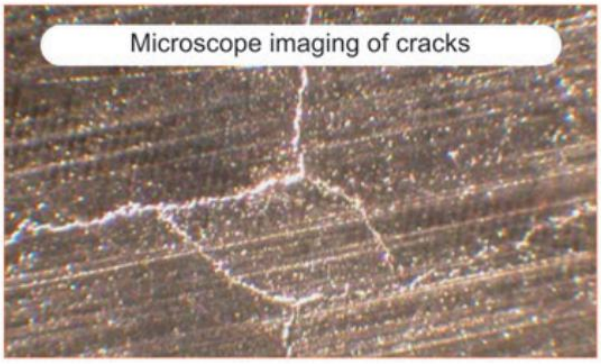
The PSM-5 test panel is used for testing the penetrant process in whole while human or automatic (semiautomatic) processing according to Pratt & Whitney Aircraft TAM 1460 40. The PSM-5 is a rectangular panel, measuring 10x15 cm, width 2,3 mm, made of stainless steel.

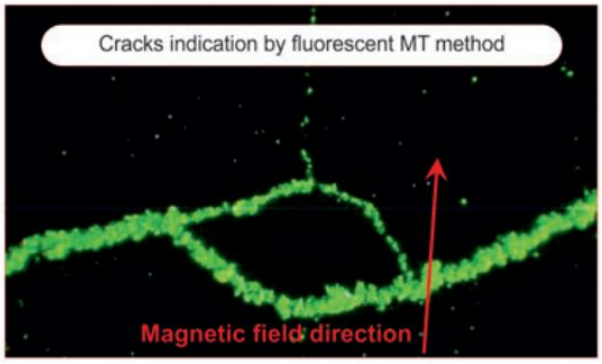
The chromium-plated strip on the left side contains 5 star-shaped crack patterns which are arranged according to their sizes.

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

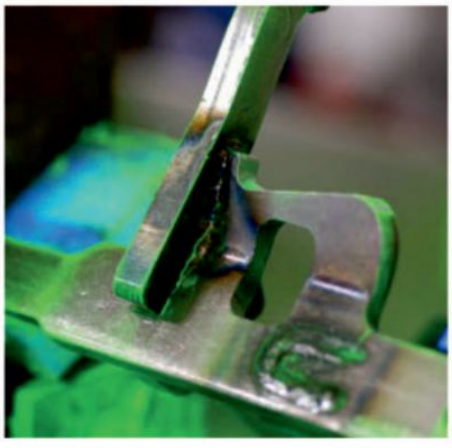
The magnetic particle testing is a separate processing procedure which consists of following parts: 1. Preparation of the test objects' surfaces for testing; 2. Magnetization of the object; 3. Application of magnetic particle suspension (powder) onto the test object; 4. Inspection; 5. Demagnetization.

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.

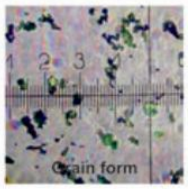




Crack indication resulted from application of the water-based suspension prepared by use of Super Magna LY 1500 dry concentrate.

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

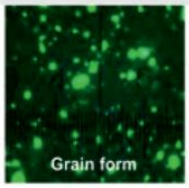


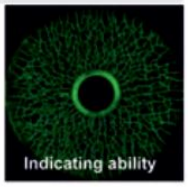


	Delivery form:		Note:
Art.No.135.001.040	Pure magnetic powder	1 kg container	1 kg sufficient for 2500 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.103.301	Liquid water-based concentrate 1:40	1 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens 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



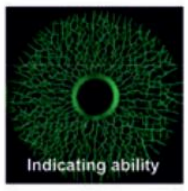


	Delivery form:		Note:
Art.No.135.001.150	Pure magnetic powder	1 kg Kcontainer	1 kg sufficient for 2500 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.103.401	Liquid water-based concentrate 1:40	1 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens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

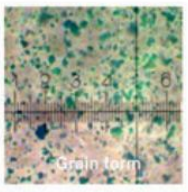




	Delivery form:		Note:
Art.No.135.001.010	Pure magnetic powder	1 kg container	1 kg sufficient for 1500 l suspension. For water based suspensions use BC 502 Additive!
Art.No.135.103.501	Liquid water-based concentrate 1:40	1 L can	Contains wetting, antifoam (silicone free) and antirust agents. Halogens 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.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-viscosityoils.

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.

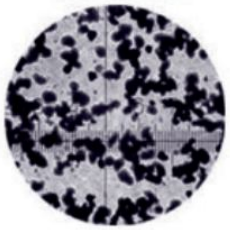


Crack indication resulted from application of the water-based suspension prepared by use of MEF 515 dry concentrate.

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.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

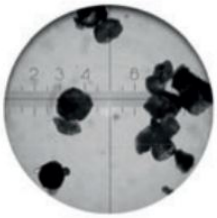


Color	Average grain size (µm)	Recommended concentration (g/l)	Sedimentation (1 g/l) / 100ml
Grey-white	37	5	0,1

	Delivery form:		Note:
Art.No.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

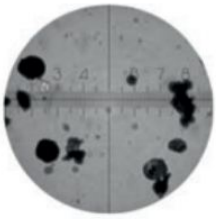


Color	Average grain size(µm)	Recommended concentration(g/l)	Sedimentation (1 g/l) / 100ml
Orange	47	5	0,3

	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

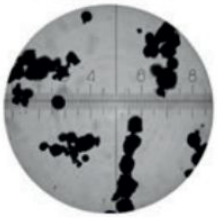


Color	Average grain size(µm)	Recommended concentration(g/l)	Sedimentation (1 g/l) / 100ml
Red	35	5	0,3

	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

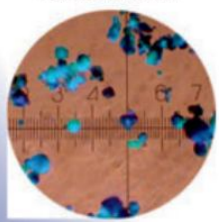


Color	Average grain size(µm)	Recommended concentration(g/l)	Sedimentation (1 g/l) / 100ml
Grey-white	30	5	0,25

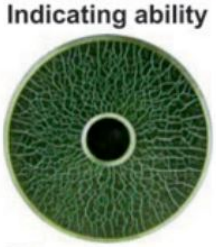
	Delivery form:		Note:
Art.No.135.003.030	Pure magnetic powder	1 kg container	1 kg sufficient for 200 l suspension. For water based suspensions use BC 502 Additive!
	Dry concentrate 15g:1L	1,5 kg container	Contains wetting, antifoam (silicone free) and antirust agents. Halogens free.

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 µm. 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 µm. 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 µm. Contents: 400 ml.



NR 104

A white background paint which is a white pigment suspension in a slightly volatile solvent, doesn't content 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 µm. 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 µm. 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 µm. 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 µm. 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° inclinationof 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





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

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 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



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

Art.No. 131.002.026

Optional: cable up to 10 m long on request



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



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 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

Art.No. 131.002.029

Optional: cable up to 10 m long on request

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.
Thismagnetizationtechnique enables the detection of discontinuities of every orientation.
In practice it means: simultaneous indicationoflongitudinal, 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 x180x320
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/cm2	appr. 4000 µW/cm2
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	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 65

To be delivered with control desk



The NR 01 Cross Yoke is used for contact and no n-contact magnetization of different parts. That is why the NR 01 Cross Yoke will especia lly do for inspection ob 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 equi potent 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 ⅔ 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, mm²	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, mm²	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, mm²	240
Dimensions, mm	900 x 580 x 750
Weight, kg	approx. 200



HELLMAG 5000

Art.No. 131.100.085