



Design Technology & Solutions

Data File

All **EPC** bare Metal coatings

ProtectaClear is a tough, clear protective coating which provides protection for metal from salt damage, tarnish, corrosion, oxidation and graffiti. ProtectaClear is tough and scratch resistant for tough jobs like railings, counters, sinks and other metals that get a lot of use. ProtectaClear is an excellent coating for interior applications with no loss of gloss on mirror finished metals.

Reduces fingerprints and smudges on stainless steel.

Provides excellent graffiti protection

Fully maintainable Finish

Low VOC's

Physical Properties of RESIN

Physical Properties RESIN	
Pot Life	Indefinite in closed container
Coverage	32 m2 per litre
Film thickness 1 coat	3-5 micron
Temperature range	minus 71C to 18C
Surface Temperature	10°C to 38°C
Ambient Temperature	4°C to 41°C
Relative Humidity	Not to exceed 85% relative humidity

Do not apply if temperature is less than 5% above dew rate

Properties Method Units Specification

Properties	Method	Units	Result
Appearance	D4176		Clear and Free From Impurities
Colour	D156	Saybolt	Clear
Colour	D1209	PT-Co	Clear
Density @ 200C	D1298	lb./gal	7.7
Boiling Point	D86	/	182°C
Dielectric	D877	kV	38.1
Vapour Pressure	1	mm Hg	5mm Hg @ 40° C
Viscosity	D2161	cSt	N/A
Aniline Point	D611	/	< -3°C
Flash Point	D56	Tag closed cup	64°C
Kauri Butanol	D1133	/	60

Applications

Surface Metal	EPC number	Result
Stainless Steel	EPC 7460A	Excellent
Aluminium	EPC 31401K	Excellent
Copper	EPC 27778 D	Excellent
Brass	EPC 27778 D	Excellent
Chrome	EPC 7460A	Excellent
Galvanise	EPC 7460A	Excellent
Gold	EPC 27778 D	Excellent
Platinum	EPC 7460A	Excellent
Silver	EPC 7460A	Excellent
Bronze	EPC 27778 D	Excellent

Film Test Results

Property ASTM method specification

Test	Type	Method	Units	Result	Rating
Impact Resistance	Flexibility	D2794	1/2"	Mandrel bend test	
			Passed	Direct & Reverse	Passed
	Impact		80 lb	No peeling, No lifting	Passed
Film Pencil test		D3363-05	Gouge	6H	7H
			Cut	7H	8H
Salt Fog Test		B117	1000 hrs		
			Aluminium <1% white rust		Rated 10
			Stainless Steel, No effect		Rated 10
Humidity Resistance		D1794	1000 hrs @ 38°C		Rated 10
Weather Exposure		D552	100 hrs cyclic	No checking	Passed
			at 120 min light	No crazing	Passed
			18 min diminished	No adhesion loss	Passed
Chemical Resistance		D1308	Procedure 5.2	15 minute spot test	
				with 10% muriatic	Passed
			Discolouration	No effect	
				Blistering	No effect
			Acid with 10% sodium Hydroxide		
				Passed	
			24 hour immersion	Passed	
			2% soap solution	Passed	
			3 types	Passed	
			24 hour recovery period		
Adhesion	No effect				
Gloss	No effect				

Temperature Resistance Heat to Gas Off 660° F / 349° C

Adhesion Characteristics

Stainless Steel

Grades

EN-standard Steel no. k.h.s DIN	EN-standard Steel name	SAE grade	UNS	Result
		440A	S44002	Excellent
1.4112		440B	S44003	Excellent
1.4125		440C	S44004	Excellent
		440F	S44020	Excellent
1.4016	X6Cr17	430	S43000	Excellent
1.4512	X6CrTi12	409	S40900	Excellent
		410	S41000	Excellent
1.431	X10CrNi18-8	301	S30100	Excellent
1.4318	X2CrNi18-7	301LN	N/A	Excellent
1.4307	X2CrNi18-9	304L	S30403	Excellent
1.4306	X2CrNi19-11	304L	S30403	Excellent
1.4311	X2CrNi18-10	304LN	S30453	Excellent
1.4301	X5CrNi18-10	304	S30400	Excellent
1.4948	X6CrNi18-11	304H	S30409	Excellent
1.4303	X5CrNi18-12	305	S30500	Excellent
	X5CrNi30-9	312		Excellent
1.4541	X6CrNiTi18-10	321	S32100	Excellent
1.4878	X12CrNiTi18-9	321H	S32109	Excellent
1.4404	X2CrNiMo17-12-2	316L	S31603	Excellent
1.4401	X5CrNiMo17-12-2	316	S31600	Excellent
1.4406	X2CrNiMoN17-12-2	316LN	S31653	Excellent
1.4432	X2CrNiMo17-12-3	316L	S31603	Excellent
1.4435	X2CrNiMo18-14-3	316L	S31603	Excellent
1.4436	X3CrNiMo17-13-3	316	S31600	Excellent
1.4571	X6CrNiMoTi17-12-2	316Ti	S31635	Excellent
1.4429	X2CrNiMoN17-13-3	316LN	S31653	Excellent
1.4438	X2CrNiMo18-15-4	317L	S31703	Excellent
1.4539	X1NiCrMoCu25-20-5	904L	N08904	Excellent
1.4547	X1CrNiMoCuN20-18-7	N/A	S31254	Excellent

Stainless Steel Finishes

BS EN Finish	Description	Result
1G or 2G	Ground Grit 120 2.5 to 2.0 μ	Excellent
1J or 2J 3B	Brushed - Unidirectional 180 1.2 to 1.0 μ	Excellent
1J or 2J 4	Dull Polished – Unidirectional 240 0.6 μ	Excellent
1K or 2K 5	Satin polished – Unidirectional 320 0.5 Max	Excellent
1P or 2P 7	Bright polished – Non-Directional	Excellent
1P or 2P 8	Mirror Finish – Non-Directional	Excellent
1M or 2M	Patterned	Excellent
2L	Coloured	Excellent
2W	Corrugated	Excellent
1S or 2S	Surface Coated (Metallic coating)	Excellent

Adhesion Characteristics

Aluminium

Aluminium Grades

Grade	Result
En AW-1xxx Pure Aluminium (>99%)	Excellent
En AW-3xxx...Aluminium Manganese Alloys AlMn	Excellent
En AW-4xxx.. Aluminium Silicon Alloys AlSi	Excellent
En AW-5xxx..Aluminium-Magnesium alloys AlMg	Excellent
En AW-2xxx Al Aluminium Cu alloys AlCu	Excellent
En AW-6xxx...Aluminium Magnesium Silicon alloys AlMg Si	Excellent
En AW-7xxx.. Aluminium Zinc Magnesium alloys AlZnMg	Excellent
AW-1200	Excellent
AW-3003	Excellent
AW-5005	Excellent
AW-5086	Excellent
AW-2011	Excellent
AW-6016	Excellent
AW-7020	Excellent

Aluminium Finishes

Finish	Result
Milled	Excellent
Brushed	Excellent
Polished	Excellent
Cast	Excellent