

Product Datasheet



BU Powder Coatings

AkzoNobel
Tomorrow's Answers Today

Interpon APP 120

Product Description

Interpon APP 120 is a powder coating primer that is designed to give enhanced corrosion protection of mild steel. **Interpon APP 120** is an epoxy-polyester primer including active anticorrosive pigments. The addition of these active pigments provides a steel passivation effect to protect the substrate. This enhances the performance when compared with standard hybrid or other non active systems.

Interpon APP120 must be overcoated with a powder or a PU liquid topcoat.

Interpon APP120 could be used as holding primer with a maximum waiting delay of 6 weeks. In this datasheet the **Interpon APP120** primer overcoated with a powder finish is termed the "**Interpon APP120**" system.

Powder Properties

Chemical type	Epoxy polyester hybrid
Appearance	Light grey satin 70 +/- 5 units (other colours available)
Particle Size	Suitable for electrostatic spray
Specific gravity	1.65 - 1.75 g/cm ³
Storage	Dry, cool conditions below 30°C
Stoving schedule	See curing condition

Test Conditions

The results shown below are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions using a complete coating system and are given for guidance only. Actual product performance will depend upon the circumstances under which the product is used.

Mechanical Tests

Substrate	Steel, Bonderite 1000, 0.8mm
Pretreatment	Iron phosphate with chromate passivation
Primer Thickness ISO2360	70 ± 10 microns
Curing	2 minutes at 200°C (as primer for complete system)
Powder Topcoat	Interpon D1036 (RAL 9010)
Topcoat Thickness	70 ± 10 microns

Corrosion Tests

Curing	10 minutes at 200°C (object temperature)
Substrate	Steel, 0.8mm thick (pretreated panels)
Pretreatment	As detailed in results tables in Appendix
Film Thickness	As detailed in results tables in Appendix
Curing	As detailed in results tables in Appendix

Mechanical Tests

Adhesion	ISO2409	0 (APP120 alone)
	(2mm crosshatch)	0 (APP120 + topcoat)
Erichsen Cupping	ISO1520	Pass 7mm (APP120 alone)
		Pass 6mm (APP120 + topcoat)
Impact	ISO6272	Pass 2mm
Flexibility	ISO6860	Pass 3mm (APP120 alone)
	(Conical Mandrel)	Pass 3mm (APP120 + topcoat)

Corrosion Tests

The **Interpon APP120** system provides excellent protection against corrosion on the surface to which it is applied. However the efficiency of this protection depends upon the surface, its preparation before coating and the topcoat applied. If there is penetrating damage to the coating system, there may be localised signs of corrosion where damage has occurred but this will not affect the adhesion of the film to the adjacent surface. **Interpon** considerably limits the extent of spread of corrosion in the event of coating damage

Neutral Salt Spray	ISO9227	Results are detailed in Table 1 of Appendix
GM Cyclic	General Motors - 15 cycles	Results are detailed in Table 1 of Appendix
Natural Exposure	ISO 12944	Results are detailed in Table 1 of Appendix

Interpon APP 120

Pretreatment For maximum protection it is essential that **Interpon APP120** is applied to a clean, dry, oxide-free ferrous metal surface, followed by recommended **Interpon** topcoat. Surface preparation depends upon the type of surface, its condition and the required performance. For good protection against corrosion the following is recommended:
Degreasing & phosphating followed by passivation, rinsing with demineralised water and drying. Follow the procedural advice of the pretreatment supplier **and/or**
Blast clean to at least SA 2.5 in accordance with ISO 8501.1, 1998 (F), or Swedish standard S15 05.09.00 with a sharp angular surface profile of Rz 35-65 µm, Ra 6-10 µm

Application **Interpon APP120** is suitable for corona electrostatic spray and for tribo depending on the tribo equipment
Recommended film thickness **60-100 µm** A good protection is linked with the recommended film thickness
Recycling Unused powder can be reclaimed using suitable equipment and recycled through the coating system, but a minimum of 70% new powder should be used.

Curing **Interpon APP120** must be cured the following conditions, depending if it is immediately overcoated or used as holding primer. The conditions depend also on the topcoat type: liquid or powder.

For immediate overcoating

System		Interpon APP120 + Powder topcoat system		Interpon APP120 + Liquid PU topcoat system	
Primer to bake		Interpon APP120		Interpon APP120	
Minimum temperature of the parts		130°C		160°C	
Maximum temperature of the parts		220°C		220°C	
Maximum oven ambience temperature		220°C		220°C	
Curing conditions	Parts temperature	Minimum time	Maximum time	Minimum time	Maximum time
	130°C	10 min (green cure)	60 min (green cure)	<i>Not applicable</i>	<i>Not applicable</i>
	160°C	10 min	60 min	10 min	60 min
	170°C	8 min	50 min	8 min	50 min
	180°C	7 min	40 min	7 min	40 min
	200°C	5 min	30 min	5 min	30 min
	220°C	3 min	10 min (<i>maximum</i>)	3 min	10 min (<i>maximum</i>)

For use as a holding primer

System		Interpon APP120 + Powder topcoat system		Interpon APP120 + Liquid PU topcoat system	
Primer to bake		Interpon APP120		Interpon APP120	
Minimum temperature of the parts		160°C		160°C	
Maximum temperature of the parts		220°C		220°C	
Maximum oven ambience temperature		220°C		220°C	
Curing conditions	Parts temperature	Minimum time	Maximum time	Minimum time	Maximum time
	160°C	10 min	60 min	10 min	60 min
	170°C	8 min	50 min	8 min	50 min
	180°C	7 min	40 min	7 min	40 min
	200°C	5 min	30 min	5 min	30 min
	220°C	3 min	10 min (<i>maximum</i>)	3 min	10 min (<i>maximum</i>)

For an immediate covering of the primer with the powder topcoat and to provide the best adhesion between them we recommend to prefer the green cure conditions of the primer.

The primer should be cured in a convection oven, optionally with/ or infra-red heaters, with air temperature not exceeding 220°C.

Note: Failure to comply with the recommended curing conditions may affect the adhesion of the topcoat and cause degradation of the coating properties of the system. Parts coated with **Interpon APP120** should be handled carefully avoiding any surface contamination.

Topcoat Application **Interpon APP120** should ideally be overcoated within 24 hours of application. However the overcoating could be done until 6 weeks after application and if needed with a preliminary cleaning. To ensure the integrity of the **Interpon APP120** powder system, as well as optimum performance, the whole system must be cured in accordance with the recommended curing conditions of the powder topcoat.
For a use as a holding primer before overcoating the primer should be cleaned. Remove dust by blowing with clean dry air and/or brush with a soft brush.
For overcoating with a liquid PU topcoat Interpon APP120 must first undergo a slight dry sanding with a 800 sandpaper.

Damage repair Any damage to the **Interpon APP120** system must be repaired as soon as possible.

Surface preparation
Damaged areas must be clean and free of grease or rust. Dry-sand the area with 600 grade paper down to the substrate. The area must be completely free of dust and cleaned with a non-aggressive solvent before proceeding.

Application
For repairs the following two-coat liquid paint system from International Protective Coatings Cromadex is Recommended:
1st Coat: two-pack acid etch primer
2nd Coat: two-pack polyurethane topcoat **Interthane 990** or **Cromadex 600**

Product datasheets for these products can be obtained from International Protective Coatings at Felling (Tel: +44 (0) 191 469 6111) or the local office. For your nearest Cromadex centre, visit cromadex.com.

Safety Precautions Please consult the Material Safety Datasheet (MSDS)

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this datasheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this datasheet is current prior to using the product. Brand names mentioned in this datasheet are trademarks of or are licensed to AkzoNobel.

