

Product Description

Interpon APP120 is a powder coating primer that is designed to give enhanced corrosion protection of mild steel. **Interpon APP120** is formulated to be over coated with powder topcoats such as **Interpon TC**, **Interpon D1094**, **Interpon D1036**, **Interpon D2525** or **Interpon D2000**. In this data sheet, the **Interpon APP120** primer over coated with a finish is termed the "**Interpon APP120 system**".

Powder Properties	Chemical type	Epoxy polyester hybrid
	Appearance	Light grey satin (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 (object temperature)	10-30 minutes at 130°C (green cure)
		10-20 minutes at 160°C
7-14 minutes at 180°C		
5-10 minutes at 200°C		
	3-6 minutes at 220°C (maximum)	

Test Conditions

The results shown below are based on mechanical and corrosion 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
Film Thickness	70±10 microns
Curing	2 minutes at 200°C (as primer for complete system)
Powder Topcoat	Interpon D1036 (RAL9010)
Film 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 (page 3)
Film Thickness	As detailed in results tables in Appendix (page 3)
Curing	As detailed in results tables in Appendix (page 3)

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 APP120** considerably limits the extent of spread of corrosion in the event of coating damage

Hot Neutral Salt Spray	ISO9227	3000 hours
	(ASTM B117)	Results are detailed in Table 1 and Table 2 of the Appendix (page 3)
GM Cyclic	General Motors	15 cycles
	GME 60203	Results are detailed in Table 1 of the Appendix (page 3)
Natural Exposure	ISO 12944	Results are detailed in Table 1 of the Appendix (page 3)

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Industrial Application Condition	Pretreatment: For maximum protection, it is essential that Interpon APP120 is applied to a clean, dry, oxide-free ferrous metal surface, followed by a 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 ISO8501.1, 1988 (F), or Swedish standard S15 05.09.00. with a sharp angular surface profile of 50 -75 microns in accordance with ISO 8503/1 for grit ($R_a = 6-12$ microns)
Recommended film thickness	60-90 microns A good protection is linked to the recommended film thickness
Application	Interpon APP120 is suitable for corona electrostatic spray and for tribo depending on the tribo equipment.
Recycling	Unused powder can be reclaimed using suitable equipment and recycled through the coating system, but a minimum of 70% new powder should always be used.
Curing	Interpon APP 120 should be partially or fully cured using the recommended stoving schedules before application of the topcoat. 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. For a use as holding primer, Interpon APP 120 must be baked at 10 min/160°C or 7 min/180°C or 5 min/200°C. The primer should be cured in a convection oven, optionally with/or infra-red heaters, with air temperature not exceeding 220°C. Note : <i>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 APP 120 should be handled carefully avoiding any surface contamination.</i>
Topcoat Application	Interpon APP 120 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 APP 120 powder system, as well as optimum performance, the whole system must be cured in accordance with the recommended curing conditions for the topcoat. For overcoating with a PU liquid topcoat, guidance should be sought from Akzo Nobel Powder Coatings.
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. Using 600 grade paper dry-sand the area down to 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 <i>Product Data Sheets 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.</i>
Safety Precautions	When using do not eat, drink or smoke. Do not breathe the dust. In case of insufficient ventilation wear suitable respiratory equipment. For further information please refer to the specific product Material Safety Data Sheet (MSDS)

Disclaimer:

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 data sheet 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 data sheet is current prior to using the product.

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Table 1: Varying preparation/pre-treatment methods and resultant test data.

Film Thickness:		Interpon APP120: 60-80µ Interpon D36: 60-80µ					
Curing Times:		(Object temp @200°C) Interpon APP120: 2 minutes					
Pre-treatment:		Solvent degrease Blast clean to SA2½ Profile: 50-75µ, (Ra 6-12µ)		Alkaline degrease Zinc Phosphate Water rinse and dry		Alkaline degrease Iron Phosphate Chromate passivation Water rinse and dry	
		Ave. Creep	Max Creep	Ave. Creep	Max Creep	Ave. Creep	Max Creep
HNSS	- 3000 hours	5.0mm	9.0mm	0.5mm	1.0mm	2.0mm	3.0mm
	- 5000 hours	8.0mm	17.0mm	3.5mm	7.0mm	---	---
GM *	- 10 cycles*	0.5mm		0mm	0.5mm	1.0mm	2.5mm
Cyclic	- 15 cycles*	1.5mm	3.0mm	1.5mm	3.0mm	---	---
Natural †	- 10 months	---	---	2.5mm	4.0mm	---	---
Exposure	- 18 months	2.0mm	3.0mm	---	---	---	---

*GM Cyclic testing according to GME 60206 consists of the following:

Hot Neutral Salt Spray (5% Na Cl) @ 35°C According to ASTM B117: 24 hours)
 Humidity - 40°C, 100% RH: 96 hours) – 1 cycle
 Ambient - 23°C, 50% RH: 48 hours)

† Natural Exposure tested according to ISO 12944, Classification C5-M.

Table 2: Additional test data – HNSS result over blasted steel with iron phosphate pre-treatment.

Film thickness:		Interpon APP120: 60 - 80µ Interpon D36: 60 - 80µ	
Curing times: (Object temp @ 200°C)		Interpon APP120: 2 minutes Interpon D36; 10 minutes	
Pre-treatment:		Solvent degrease Blast clean to SA2½ Profile: 50-75µm, (Ra 6-12µ) Iron Phosphate Water rinse and dry	
		Ave. Creep	Max Creep
HNSS	- 1000 hours	1.0mm	2.0mm
	- 3000 hours	2.0mm	3.0mm