

# Product Data Sheet

## AkzoNobel Powder Coatings

### Interpon Redox APA EL286A

<b>Product Description</b>	<p><b>Interpon Redox APA</b> is an epoxy-polyester powder coating primer especially designed for direct application on substrates that are sensitive to out-gassing, such as Hot Dip Galvanized steel, Metal spraying, Zamak, Cast steel, Aluminium, brass etc.</p> <p><b>Interpon Redox APA</b> offers excellent flow, chemical and salt spray resistance, and resistance to mechanical damage. Interpon Redox APA is suitable for use as a primer for a variety of liquid topcoats, however it is recommended that pre-qualification tests for intercoat adhesion be carried out prior to use.</p>	
<b>Powder Properties</b>	<b>Chemical type</b>	Epoxy-Polyester
	<b>Appearance</b>	Smooth
	<b>Color</b>	Grey
	<b>Recommended Film Thickness (µm)</b>	50 - 80 µm
	<b>Density (g/cm<sup>3</sup>)</b>	1,68 ± 0,03 g/cm <sup>3</sup>
	<b>Application</b>	Electrostatic
	<b>Storage</b>	Under dry, cool (≤ 30°C) conditions
	<b>Shelf life</b>	At least 12 months from production date
	<b>Curing schedule</b>	See section curing bellow
<b>Test Conditions</b>	<p>The results shown below are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only. Actual product performance will depend upon the circumstances under which the product is used.</p>	
	<b>Substrate</b>	Steel
	<b>Pretreatment</b>	Iron phosphate
	<b>System Thickness</b>	50-70 microns
	<b>Curing Schedule (with topcoat)</b>	10 minutes at 200°C (Object Temperature) Topcoat: Interpon D1000 60-80 microns
	<b>Adhesion</b>	ASTM D3359-97 (2mm crosshatch)      Class 5B (Primer) Class 5B (System)
	<b>Erichsen Cupping</b>	ASTM E643-84      Pass 5 mm (Primer) Pass 4 mm (System)
	<b>Impact</b>	ASTM D2794      Pass 0.5 kg.m (Primer) Pass 0.4 kg.m (System)

<b>Corrosion Tests</b> Mild Steel	The results shown are based on tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for advice only, actual performance depends upon the circumstances under which the product is used.		
	<b>Neutral Salt Spray</b>	ASTM B117	Results are detailed in Table 1 of Appendix
<b>Chemical Tests</b>	<b>Humidity Resistance</b>	AS 4506 Section 2.9	Pass 1000 hrs - no blistering or loss of adhesion
	<b>Exterior durability</b>	Designed to be used as a primer under suitable powder coating or wet paint topcoats. Exterior durability will then be a function of the topcoat.	
<b>Pretreatment</b>	For optimum coating performance the following pre-treatment is recommended prior to the application of <b>Interpon Redox APA</b> . The pre-treatment should be used in accordance with the supplier's recommendations. <ul style="list-style-type: none"> <li>a) Aluminium Multistage chrome chromate or chrome phosphate</li> <li>b) Galvanised Steel Multistage zinc phosphate or chromate</li> <li>c) Steel Multistage zinc or iron phosphate</li> </ul>		
<b>Application</b>	<b>Interpon Redox APA</b> is suitable for corona electrostatic spraying. Tribo application is not recommended.		
	<b>Curing limits</b>	See Curing and Application sections below	
	<b>Recommended film thickness</b>	50-80 µm, good protection is linked with the recommended film thickness.	
	<b>Recycling</b>	Unused powder can be reclaimed using suitable equipment and recycled through the coating system, but a minimum of 70% new powder should be used.	

Note: Failure to comply with the recommended curing conditions may affect the adhesion of the topcoat and cause degradation of the system performance properties. Parts coated with **Interpon Redox APA** should not be handled if possible. If handling is unavoidable, clean lint-free gloves must be worn.

### Curing

**Interpon Redox APA** shows a wide curing range must allowing application on substrates of different nature and thicknesses.

Object temperature	Green curing		Full curing	
	Time		Time	
160°C	12'		20'	
170°C	10'		15'	
190°C	6'		12'	
200°C	2'		10'	

The **Interpon Redox APA** system provides excellent protection against corrosion on the surface to which it is applied. However, the efficiency of this protection depends on the surface, its preparation before coating and the topcoat applied.

### Topcoat Application

To ensure optimal results, **Interpon Redox APA** should be overcoated within 24 hours after its application. Top coat should in any case be applied within a period not exceeding one week after **Interpon Redox APA** has been cured.

To ensure optimum performance, the system **Interpon Redox APA** + topcoat should be fully curing according to the topcoat curing recommendations.

Note: Failure to comply with the recommended final curing conditions may cause variations in color and gloss and cause degradation of the coating properties of the system.

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**Damage repair**

Any damage of the **Interpon Redox APA** coating 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 is recommended:

- 1<sup>st</sup> Coat: two-pack zinc-rich epoxy primer, Interzinc 72
- 2<sup>nd</sup> Coat: two-pack polyurethane topcoat, Interthane 990

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**Safety Precautions**

This product is intended for use only by professional applicators in industrial environments and should not be used without reference to the relevant health and safety data sheet which Akzo Nobel has provided to its customers.

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**Disclaimer**

**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 fulfil 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.

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**Appendix 1: Performance tables Neutral Salt Spray**

Coating System		Interpon Redox APA + Interpon D1000
Conditions	Substrate	Hot Dip Galvanized Steel
	Pretreatment	Sweeping
	Primer thickness	60 - 100 µm
	Topcoat thickness	70 - 90 µm
	Adhesion on surface before test	Class 5B (as per ASTM D3359-97)
Neutral Salt Spray ASTM B117	<b>Time</b>	<b>Comments</b>
	1 500 hours	No corrosion creep more than 2mm from scribe.

<http://www.interpon.com/contact-us/>

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