Technical Datasheet

Interpon Redox APA

FL151F Grey

Primer especially designed for direct application on substrates that are sensitive to out-gassing

Product description

Interpon Redox APA 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.

Interpon Redox APA 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.

Approvals

Qualisteelcoat Approval	PE-0032: Coating system: HD2, Pre-treatment: Mechanical, Corrosivity Category: C5H PE-0034: Coating system: MS2, Pre-treatment: None, Corrosivity Category: C5H
GSB Approval	904b approved for Zn & Fe Coating material / Standard

Powder properties

	Typical value
Chemical Type	Epoxy-polyester
Density	1.2 - 1.9 g/cm³
Gloss (60°)	55 - 65 GU
Recommended film thickness	60 - 80µm
Shelf life	24 months below 25 °C
Storage Conditions	Under dry, cool (≤ 25°C) conditions (open boxes must be resealed)
Curing schedule	Interpon Redox APA shows a wide curing range must allowing application on substrates of different nature and thicknesses. Green curing: 160°C 10-60' 180°C 7-14' 200°C 5-9' Full curing: 180°C 15-40' 200°C 10-30' Temperature = Object temperature. For use as anti-gassing primer, a full curing must be required.

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Pre-treatment

Surface preparation depends upon the metal, the type of surface, its conditions and the required performance.

Substrate: Mild/steel, Cast steel
Mechanical pretreatment: Grit Blasting Sa 2.5 in accordance with ISO NF EN 8501-1. Roughness: Rz 42-84 µm / Ra 6-12 µm
Chemical pretreatment: Degreasing & phosphating (or equivalent) followed by passivation, DW rinsing and drying.*

Electro Zinc steel, Hot dip galvanized steel
Mechanical pretreatment: Sweeping with a maximum zinc layer thickness reduction of 5 to 10 µm depending on the initial zinc thickness
Chemical pretreatment: Degreasing by phosphating and passivation or primary wash Cromadex 903, which can be substituted by a chemical passivating with the Cromadex MC245.

Aluminium
Mechanical pretreatment: Sweeping
Chemical pretreatment: Follow Qualicoat (16 edition) recommendations for pre-treatment menthods.

Zinc sprayed (gas flame/electrical deposition)
Mechanical pretreatment: Grit Blasting Sa 3 in accordance with ISO NF EN 8501-1. Roughness: Rz 42-84 µm / Ra 6-12 µm
Chemical pretreatment: Banned

* Also applicable for Electro Zinc steel substrate

Application

Powders can be applied by manual or automatic electrostatic spray equipment.
All powders can show small color differences from batch to batch, this is normal and unavoidable.
Bonded products have better application properties than blended products (more stable) but attention should still be paid to line settings in order to avoid “marble effect” and changes in aspect after recycling.
Different substrates (aluminium, steel, galvanized steel…), use of primer, and big changes in film thickness may give a different aspect.
It is recommended that for consistent application and appearance product be fluidized during application.
Clearcoats including tinted clearcoats cannot be applied directly on primers. Only fully opaque shades are suitable for application over primer.

Interpon Redox APA is suitable for corona electrostatic spray and for tribo depending on the tribo equipment.

Application Method	Electrostatic, Tribo
Recycling	Unused powder can be reclaimed using suitable equipment and recycled through the coating system, but a minimum of 70% virgin powder should be used.

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Test conditions

The results are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only
Testing has been determined under laboratory conditions using the following application properties and is for guidance only.

Pre-treatment	Iron Phosphate
Substrate	Polished steel
Curing schedule	10 min at 200°C (object temperature) Topcoat: Interpon D1036 / D2525 Ral 9010 60-80 microns
Film Thickness	70 - 90µm

Mechanical tests

	Typical value	Method/standard
Adhesion	Class 0 (system), Class 0 (primer)	ISO 2409 (2 mm Crosshatch)
Erichsen cupping	Pass 4 mm (system), Pass 6 mm (primer)	ISO 1520
Flexibility	Pass 5 mm (Primer), Pass 5 mm (system)	ISO 1519
Impact resistance	Pass 0.2 kg·m (primer), Pass 0.2 kg·m (system)	ISO 6272-2 (d/r)

Chemical and durability tests

	Typical value	Method/standard
Salt spray test	Pass, no corrosion creep more than 3 mm from scribe, 1500 h Substrate: Hot dip galvanized steel. See testing details in dedicated section additional info below.	ISO 9227

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 stoving recommendations.

Repair

Surface preparation	Sanding + Air cleaning Any damage of the coating system must be repaired as soon as possible.
Application	For repairs a PU (2K or 1K) liquid paint is recommended.

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Additional Information

Corrosion Tests on Hot Dip Galvanised 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.

Coating System: Interpon Redox APA + Interpon D1036 RAL6005
Substrate: Hot Dip Galvanized Steel
Pretreatment: Sweeping
Primer thickness: 60 - 100 µm (curing 10 minutes at 160°C)
Topcoat thickness: 70 - 90 µm (curing 10 minutes at 200°C)
Adhesion on surface before test: Class 0

Neutral Salt Spray ISO 9227
Time: 1500 hours
Observations: Adhesion GT0, no rust, no blistering

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.

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

Corrosivity Classes and Durability categories based on ISO 12944:2018

ISO 12944:2018 Corrosivity classes				
Category	Low < 7 years	Medium 7 – 15 years	High 15-25 years	Very High Over 25 years
C3	120h	240h	480h	720h
C4	240h	480h	720h	1 440h
C5	480h	720h	1440h	
Average corrosion creep (mm): 1,5 mm		• Neutral salt spray ISO 9227		

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