Technical Datasheet

Interpon 700 AF

Epoxy-Polyester powder coatings with advanced fluidity

Product description

Interpon 700 AF is a serie of epoxy polyester hybrid powder coating that is designed to offer users significant improvements in their application characteristics. Interpon 700 offer optimum combination of decorative and protective qualities and granting very high chemical and mechanical properties of the cured film. These powders are commonly recommended for indoor usage.

They can be sprayed on conventional equipment and are compatible with standard powders but give a more uniform coverage, and in particular give improved coverage in Faraday Cage areas. Powders are available in a range of colours in gloss and reduced gloss finishes and are always custom matched to the user's requirements.

Interpon 700 AF powders are available in a range of colors in gloss, satin finishes and are always custom matched to the user's requirements.

Approvals

Resistance to Fire Approval	A2,s1,d0 with film thickness up to 120 µm (generic polyester 700) according to EN13501-1

Powder properties

	Typical value
Chemical Type	Epoxy-polyester
Density	1.2 - 1.7 g/cm³, depending on colour and effect
Recommended film thickness	60 - 90µm
Shelf life	24 months below 30 ºC
Storage Conditions	Under dry, cool (≤ 30°C) conditions (open boxes must be resealed)
Curing schedule	15-20 min at 180°C 8-12 min at 190°C 5-7 min at 200°C

Pre-treatment

Aluminium, steel or Zintec surfaces to be coated must be clean and free from grease.
Iron phosphate and particularly Zinc phosphating of ferrous metals improves corrosion resistance. Aluminium substrates may require a chromate conversion coating.

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Application

Powders can be applied by manual or automatic electrostatic spray equipment.
A good protection is linked with the recommended film thickness.
All powders can show small color differences from batch to batch, this is normal and unavoidable.
While AkzoNobel take every precaution to minimize visible differences, this cannot be guaranteed.
Applicators and fabricators are advised to use a single batch for parts that will be assembled together. Differences are more likely with special effect powders.
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.
Products with different codes should not be mixed even if same colour and gloss.
It is recommended that for consistent application and appearance product be fluidized during application.

Application Method	Electrostatic
Recycling	A constant ratio between virgin and recycled powders should be fixed by the coater in order to achieve a consistent effect following the AkzoNobel rules. Please consult AkzoNobel for further details as to the correct mixing ratio for virgin/reclaim powder. Unused powder can be reclaimed using suitable equipment and recycled through the coating system, but a minimum of 70% virgin powder should be used. For solid shades, unused powder can be reclaimed

Post application

Contact, even for a short duration with certain household products and chemicals, can cause irreversible changes in the gloss and appearance. We recommend that a test is carried out on a non-visible area before using these types of products on this coating.

Test conditions

Actual product performance will depend upon the circumstances under which the product is used.
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.

Pre-treatment	Zinc Phosphate
Substrate	Polished steel
Curing schedule	6 min at 200°C (object temperature)
Film Thickness	60 - 70µm

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Mechanical tests

	Typical value	Method/standard
Adhesion	Class 0	ISO 2409 (2 mm Crosshatch)
Erichsen cupping	Pass 7 mm	ISO 1520
Flexibility	Pass 3 mm	ISO 1519
Impact resistance	≥30 kg.cm	ISO 6272-2 (d)

Chemical and durability tests

Whilst maintaining the general protective and anti-corrosive properties of powder coatings, aluminum and copper/bronze metallic finishes, when submitted to the listed tests, may rapidly show a loss of metallic aspect. 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.

	Typical value	Method/standard
Chemical Resistance	Generally good resistance to acid, alkalis and oil at room temperatures.	
Salt spray test	Pass, no corrosion creep more than 3 mm from scribe, 500 h	ISO 9227

Environmental and durability tests

	Typical value	Method/standard
Humidity	Pass - no blistering or loss of gloss, 1000 h	ISO 6270-2 CH (Constant humidity)
Exterior durability	Some chalking after 6-12 months continuous outdoor exposure but less than pure epoxies. Protective properties not impaired. Not recommended for outdoor applications.	

Maintenance

For specific advice on Cleaning and Maintenance, please follow Powder Coatings: Cleaning & Maintenance of Surfaces for Industrial use available from AkzoNobel.

Repair

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. 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

Interpon 700 powders are available in bright Aluminium finishes which are susceptible to scratching and finger marking. For these products, protection by use of a clear polyester topcoat is recommended when the coated article is to be subjected to physical or environmental damage. The topcoat should ideally be applied within 2 hours of the metallic coating and gloves should be worn when handling the metallic coated articles.

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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