

Product Data Sheet

AkzoNobel Powder Coatings

Interpon 100 AM

Product Description

Interpon 100 AM is a series of epoxy-based powder coatings designed to give optimum mechanical performance and exceptional protective qualities on fabrications and components where long-term exposure to ultra violet light or exterior weathering is not anticipated in combination with specific antimicrobial activity.

Interpon 100 AM powders are available in the full range of colors in gloss, reduced gloss, textured, metallics and other special finishes or can be custom matched to the user's requirements.

Interpon 100 AM is a high-quality powder coating designed to meet decorative and functional demands. Additionally, **Interpon 100 AM** uses antimicrobial technology to reduce the number of microbes such as bacteria and mold. Test results have proven reduction of bacteria and mold up to 99.9%

Powder Properties

Chemical type	Epoxy
Density (g/cm³)	1.2-1.8 g/cm ³ depending on color and effect
Application	Suitable for electrostatic spray
Storage	Under dry, cool ($\leq 25^{\circ}\text{C}$) conditions (open boxes must be resealed)
Shelf life	12 months
Curing schedule (object temperature)	15 minutes at 180°C 10 minutes at 190°C 6 minutes at 200°C

Test Conditions

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.

Substrate	Polished steel
Pretreatment	Zinc Phosphate
Film Thickness	60-70 microns
Curing Schedule (Object Temperature)	5 minutes at 200°C

Mechanical Tests

Adhesion	ISO 2409 (2mm crosshatch)	Gt 0
Flexibility	ISO 6860 (Conical Mandrel)	Pass 3 mm
Erichsen Cupping	ISO 1520	≤ 7 mm
Impact	ISO 6272-2	Pass 2,5 Joules reverse & direct (20 in lb)

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.

Salt Spray (500 hours)	ISO 9227	no corrosion creep more than 3 mm from scribe
Cyclic Humidity	ISO 6270 (1000 hours)	Pass - no blistering or loss of gloss
Distilled Water Immersion	ISO 2812 (240 hours)	Pass - no blistering or loss of gloss
Exterior Durability	Not recommended for outdoor applications. Some chalking and loss of gloss after 3-6 months continuous outdoor exposure. Protective properties retained.	
Chemical Resistance	Generally excellent resistance to most acids and alkalis and oils at normal temperatures.	

Pretreatment

Aluminium, steel or Zintec surfaces to be coated must be clean and free from grease. Iron phosphate and particularly lightweight zinc phosphating of ferrous metals improves corrosion resistance.

Aluminium substrates may require a chromate conversion coating.

Application

Interpon 100 AM powder coatings can be applied by corona electrostatic equipment.

In all application processes the aspect obtained is subject to variation, depending on the method of application (type of gun, nozzle, etc) and the shape/type of component. We recommend that the actual application parameters are adapted and adjusted depending on the type of component and with each powder batch to give a finish in accordance with our color card.

The following procedure is given as a guideline when using these finishes. We recommend the use of flat jet spray nozzles. To ensure powder homogeneity, the complete content of the boxes should be emptied completely into the feed hopper. For manual application it is essential to ensure that an even film thickness is applied, and, in all instances, sinusoidal gun movements should be avoided.

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 to avoid "marble effect" and changes in aspect after recycling. For more details it is suggested to read the "**Metallic Application Guideline**".

Different substrates (Aluminium, steel, galvanized steel, etc.), 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 color and gloss.

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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Post Application

Contact with Chemical Agents

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.

Additional Information

Interpon 100 AM has been tested for antimicrobial efficacy in accordance with ISO 22196: 2011 and exhibited a minimum of 95% and up to 99.99% reduction in the population of *Escherichia coli* and Methicillin Resistant *Staphylococcus aureus* (MRSA).

Testing was carried out by an independent laboratory and is classified as 'microbiological results satisfactory'. Silver ion technology has been proven effective against the following bacteria in laboratory conditions:

Multi Drug Resistant Bacteria

- ESBL *Escherichia coli*
- CRE *Klebsiella pneumoniae*
- MRSA Methicillin Resistant *Staphylococcus aureus*
- VRE *Vancomycin Resistant Enterococcus*

Bacteria

- *Acinetobacter baumannii*
- *Bacillus subtilis*
- *Campylobacter* spp.
- *Clostridium difficile* (excluding spore form)
- *Escherichia coli* O157
- *Enterobacter aerogenes*
- *Enterococcus faecalis*
- *Legionella* spp.
- *Listeria monocytogenes*
- *Pseudomonas aeruginosa*
- *Salmonella* Enteritidis
- *Salmonella* Typhimurium
- *Shigella* spp.
- *Staphylococcus aureus*
- *Staphylococcus epidermidis*

Interpon 100 AM contains silver phosphate glass antimicrobial technology to preserve the coating surface and prevent degradation caused by microbial growth once applied to the intended substrate.

Additional information 2

High Reactivity – (HR) powders are also available for use where a lower curing temperature or shorter curing schedule is required.

Sales Code

B-Serie

Curing schedule

30 minutes at 130°C
15 minutes at 150°C
5 minutes at 180°C

Shelf life

6 months

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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