

# Product Data Sheet

## AkzoNobel Powder Coatings

### Interpon 610

#### Product Description

**Interpon 610** is a series of polyester based powder coatings, formulated without the use of TGIC, designed for the exterior environment, offering good light and weather resistance from a single coat finish on a variety of substrates.

Interpon 610 powders are available in a wide range of colors in gloss, satin, matt, metallic and textured effects and can be custom matched to the user's requirements.

#### Powder Properties

<b>Chemical type</b>	Polyester TGIC Free
<b>Density (g/cm<sup>3</sup>)</b>	1.2-1.8 g/cm <sup>3</sup> depending on color and effect
<b>Application</b>	Suitable for electrostatic spray
<b>Storage</b>	Under dry, cool ( $\leq 30^{\circ}\text{C}$ ) conditions (open boxes must be resealed)
<b>Shelf life</b>	24 months below $30^{\circ}\text{C}$ 12 months below $35^{\circ}\text{C}$
<b>Curing schedule</b>	20-40 minutes at $170^{\circ}\text{C}$ 10-20 minutes at $180^{\circ}\text{C}$ 08-16 minutes at $200^{\circ}\text{C}$

#### 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.

<b>Substrate</b>	Gold Seal polished 0.5mm steel
<b>Pretreatment</b>	Gold Seal lightweight Zinc Phosphate
<b>Film Thickness</b>	60 microns
<b>Curing Schedule</b> (Object Temperature)	10 minutes at $200^{\circ}\text{C}$

#### Mechanical Tests

<b>Adhesion</b>	ISO 2409 (2mm crosshatch)	Class 0
<b>Flexibility</b>	ISO 6860 (Conical Mandrel)	Pass 3 mm
<b>Hardness</b>	ISO 1518 (2000g)	Pass - no penetration to substrate
<b>Erichsen Cupping</b>	ISO 1520	$\geq 7\text{mm}$
<b>Impact</b>	ISO 6272	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.

<b>Salt Spray</b> (250 hours)	ISO 9227	Pass - no corrosion creep more than 2 mm from scribe
<b>Cyclic Humidity</b> (1000 hours)	ISO 6270	Pass - no blistering or loss of gloss
<b>Distilled Water Immersion</b> (240 hours)	ISO 2812	Pass - no blistering or loss of gloss
<b>Exterior Durability</b>	Suitable for outdoor use	
<b>Chemical Resistance</b>	Good resistance to most dilute solutions of acids, alkalis and oil at normal temp	

For application on Buildings we recommend using our *Interpon D* series.

**Pretreatment**

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

Substrate	Mechanical pretreatment	Chemical pretreatment
Mild steel	Grit Blasting Sa 2.5 in accordance with ISO NF EN 8501-1. Roughness: Rz 42-84 $\mu\text{m}$ / Ra 6-12 $\mu\text{m}$ .	Degreasing & phosphating followed by passivation, DW rinsing and drying.
Cast steel		
Electro Zinc steel	Sanding	
Hot dip galvanized steel	Sweeping with a maximum zinc layer thickness reduction of 5 to 10 $\mu\text{m}$ depending on the initial zinc thickness.	Degreasing by phosphating & passivation or primary wash using liquid primer Cromadex 903 (can be substituted by chemical passivation with Cromadex MC245).
Zinc sprayed (gas flame/electrical deposition)	Light sanding/Light sand Blasting	Not recommended

Detailed advice should be sought from the pre-treatment supplier.

**Application**

**Interpon 610** 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.

<b>Recycling</b>	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.

**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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