

# Product Data Sheet

## AkzoNobel Powder Coatings

### Interpon 610 Low-E

#### Product Description

**Interpon 610 Low-E** is a range of polyester based powder coatings, formulated without the use of TGIC. This range is designed for either interior or exterior environment, offering excellent light and weather resistance on a variety of substrates.

The products in the range are engineered to minimize the formation defects such as pinholes caused by air bubbles in the paint film due to gas release in porous substrates during curing.

The cured coating shows no blooming effect. They are also easy to apply and can be cured from 150-170°C thereby offering potential energy reductions during the cure process.

#### Powder Properties

<b>Chemical type</b>	Polyester – TGIC Free
<b>Gloss (60°)</b>	Gloss (85), Satin (70), Matt (30)
<b>Appearance</b>	Smooth
<b>Recommended Film Thickness (µm)</b>	60 - 120 µm
<b>Density (g/cm<sup>3</sup>)</b>	1,2 - 1,8 g/cm <sup>3</sup> depending on color (see CoA for product specific)
<b>Application</b>	Electrostatic
<b>Storage</b>	Under dry, cool (≤ 25°C) conditions (open boxes must be resealed)
<b>Shelf life</b>	At least 24 months from production date
<b>Curing schedule (at object temperature)</b>	23 - 35 minutes at 150°C 12 - 30 minutes at 160°C 8 - 20 minutes at 170°C 5 - 10 minutes at 180°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 steel
<b>Pretreatment</b>	Gold Seal Lightweight Zinc Phosphate
<b>Film Thickness</b>	60 - 80 microns
<b>Curing Schedule (object temperature)</b>	23 minutes at 150°C

#### Mechanical Tests

<b>Flexibility (Cylindrical Mandrel)</b>	ISO 1519	Pass 5mm
<b>Adhesion (2mm crosshatch)</b>	ISO 2409	Gt0

<b>Erichsen Cupping</b>	ISO 1520	Pass 5mm
<b>Hardness (2000g)</b>	ISO 1518	Pass - no penetration to substrate
<b>Impact</b>	ISO 6272	≥ 50 kgcm (direct/reverse)

#### Chemical and Durability Tests

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 (250 hours)</b>	ISO 9227	Pass - no corrosion creep more than 2mm from scribe
<b>Cyclic Humidity (1000 hours)</b>	ISO 6270	Pass - no blistering or loss of gloss
<b>Distilled Water Immersion (240 hours)</b>	ISO 2812	Pass - no blistering or loss of gloss
<b>Exterior Durability</b>	Excellent – non chalking, slight loss of gloss after 12 months continuous exposure but no film breakdown or reduction in protective properties	
<b>Chemical Resistance</b>	Generally excellent resistance to most acids, alkalis and oils at normal temperatures.	

#### Pre-treatment

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 610 Low-E** powders can be applied by manual or automatic electrostatic spray or tribo-charging equipment. For solid shades, unused powder can be reclaimed up to a maximum of 30% using suitable equipment and recycled through the system. Please consult AkzoNobel for further details as to the correct mixing ratio for virgin/reclaim powder.

<b>Recommended film thickness</b>	60-120 µm. A 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.

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. A constant ratio between virgin and recycled powders should be fixed by the coater to achieve a consistent effect. For more details it is suggested to read the “Metallic Application Guideline”.

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 color and gloss.

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**Damage repair**

Any damage of the **Interpon 610 Low-E** 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 a PU (2K or 1K) liquid paint is recommended.

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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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