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**Product Description**

Epoxy polyester hybrid powder coatings offering an 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.

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**Powder Properties**

<b>Chemical type</b>	Epoxy Polyester
<b>Density (g/cm<sup>3</sup>)</b>	1.2-1.7 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
<b>Curing schedule</b>	15 minutes at $180^{\circ}\text{C}$ 10 minutes at $190^{\circ}\text{C}$ 6 minutes at $200^{\circ}\text{C}$

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**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>	polished steel
<b>Pretreatment</b>	Zinc Phosphate
<b>Film Thickness</b>	60-70 microns
<b>Curing Schedule</b> (Object Temperature)	6 minutes at $200^{\circ}\text{C}$

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**Mechanical Tests**

<b>Adhesion</b>	ISO 2409 (2mm crosshatch)	Gt 0
<b>Flexibility</b>	ISO 1519	Pass 3 mm
<b>Erichsen Cupping</b>	ISO 1520	$\leq 7$ mm
<b>Impact</b>	ISO 6272	> 30 kg·cm direct

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**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> (500 hours)	ISO 9227	Pass - no corrosion creep more than 3 mm from scribe
<b>Cyclic Humidity</b>	ISO 6270 (1000 hours)	Pass - no blistering or loss of gloss
<b>Distilled Water Immersion</b>	ISO 2812 (240 hours)	Pass - no blistering or loss of gloss
<b>Exterior Durability</b>	Not recommended for outdoor applications.  Some chalking after 6-12 months continuous outdoor exposure but less than pure epoxies. Protective properties not impaired.	
<b>Chemical Resistance</b>	Generally good resistance to most acids and alkalis and oils at normal temperatures.	

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**Pretreatment**

Aluminum, steel or Zintec surfaces to be coated must be clean and free from grease. Iron phosphate and particularly lightweight zinc phosphate 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. Unused powder can be reclaimed using suitable equipment and recycled through the coating system.

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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.

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**Additional Information**

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.

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