

## PRODUCT DATA SHEET

### EPOXY POLYESTER – HB – SERIES

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**Product Description:** SAK **Epoxy Polyester Series** is a versatile **Epoxy Polyester hybrid** powder coatings developed to provide attractive decorative finishes with protective and functional properties. Titan Epoxy Polyester series offer excellent mechanical and chemical performance with superior flow and finish. It provides good color stability during curing. Epoxy – Polyester hybrid coatings are discolored for applications where resistance to UV light is a prerequisite.

SAK Pure Epoxy Powders are available in a wide range of colours including RAL, IS Shades in Gloss, Satin and Matt finishes. Other products like Structure, Texture & Metallic Finishes are also available

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**Powder Application:** Electrostatic Powder Spray – 40 to 100 KV (Kilovolt)

SAK Pure Epoxy powder Paint can be applied by automatic Electrostatic corona and Tribo static spray equipment. Unused powder can be reclaimed using suitable equipments and recycled through the coating systems.

SAK Metallic Powder Paint can be applied by or automatic Electrostatic corona spray equipment. However different electrostatic gun type may exert different charging characteristics and hence affects appearance. Also due to the nature of the product care should be taken, by means of spray outs, to ensure that reclaimed powder has good color and gloss uniformity as well as consistency of 'SPARKLE' when compared to original virgin material.

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**Application Areas:** SAK Epoxy-Polyester series is recommended for interior application. It features a large spectrum of finishes and Gloss levels. Typical application areas are Domestic Appliances, Indoor Metal Furniture's and Fixtures, Lighting Equipments, Laboratory Furniture's, Machine Components, Trays & Kitchenware's and hand tools.

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**Pre-treatment:** Substrate should be free of grease, oil, dirt, fingerprints, and drawing compounds, any contamination and surface preparation treatment to ensure optimum adhesion and coating performance properties. The use of a chemical conversion coating prior to the application of a powder coating is strongly recommended i.e. Iron Phosphate / Low Wt. Zinc Phosphate.

The recommended types of pre-treatments for the the most frequently used substrates are:

Aluminum:	Chromate conversion
Steel:	Zinc Phosphate
Zinc coated steel:	Zinc Phosphate or Chromate conversion

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### Powder Properties:

Chemical Type	:	<b>Epoxy Polyester</b>		
Gloss @ 60° (ASTM D-523)	:	Glossy Finish	-	80 (+/-) 10 Units
		Semi-glossy Finish	-	70 (+/-) 10 Units
		Satin Finish	-	40 (+/-) 10 Units
		Matt Finish	-	20 (+/-) 10 Units
		Dead Matt Finish	-	5 (+/-) 5 Units
Particle Size	:	Suitable for Tribo and Corona application		
Specific Gravity	:	1.2 – 1.8 (Depending upon the colour & Finish)		
Theoretical Coverage	:	6 – 12 sq. meters per kg (Coverage depends upon the Dry Film Thickness, Sp. Gravity, Specifications, % Application Efficiency & Product Mix)		
Storage	:	Dry cool condition below 25°C temp. 6 month to over 1 year. When not in use store powder in sealed condition; fine powders are hygroscopic in nature		
Curing Schedule(Object Temp.):	:	190 °C / 10 Min (or) 200 °C / 10Min.		
Film Thickness	:	For Plane Finish	:-	50 - 70 micron
		For Structure Finish	:-	70 – 100 micron

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### Powder Performance Test:

• Impact Resistance	(ASTM D 2794)	-	100 kg.cm passes (No surface defect on substrate)
• Flexibility	(ASTM D 552)	-	4mm passes (No surface defect on substrate)
• Adhesion	(ASTM D 3359)	-	GT – '0' passes (2 mm square)
• Pencil Hardness	(ASTM D 3363)	-	H TO 2H (No pencil marks)

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### Powder chemical Test:

• 5 % Salt Spray	(ASTM B117-3)	-	min.500 hrs. No face rust, 3mm creep-age from Scribe & dot rust
• Water Immersion	(ASTM D870)	-	Min. 500 hrs. No blistering or other failures @45 °C
• Exterior Durability		-	Excellent.
• Over Baking Stability		-	One More Pass (Delta E < 1)

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**Material Safety:** A material Safety Data Sheet of the product is available on request. Minimum safety precautions in dealing with all powder coatings are as follows. All dusts are respiratory irritant. Therefore, inhalation of the dust or of the vapors resulting from the cure should be avoided. Take step to prevent skin contact, but should contact occur, wash skin with soap and water. In case of eye contact flush immediately with clean water and seek medical advice. Dust clouds of any finely divided material can be ignited with an electric spark or open flame so avoids building up on surfaces. All equipment should be electrically earthed to prevent build up of static.

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### Note -

Product Data Sheet is periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating and opinions stated above pertain to the material currently offered and represent the result of test believed to be reliable. However due to variation in customer handling and methods of application, which are not known or under our control. The SAK Coats Company cannot make any warranties or guaranties as to the end results