

Product Data Sheet

PURE POLYESTER POWDERS – PP – SERIES

Product Description: SAK **Pure Polyester Series** is a **Pure Polyester TGIC** powder coatings developed to satisfy the requirements of Exterior durability with attractive decorative finishes combined with Optimum protective and functional properties. SAK Pure Polyester series offer excellent gloss retention and resistance to colour change properties. It also satisfies the highest requirements of building industry for aesthetic performance, UV Light resistance and humidity resistance.

SAK Pure 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

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

SAK Pure Polyester powder Paint can be applied by automatic Electrostatic corona. 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 colour and gloss uniformity as well as consistency of 'SPARKLE' when compared to original virgin material.

Application Areas: SAK Pure Polyester series is recommended for Exterior application. It features a large spectrum of finishes and gloss levels. Typical application areas are Air conditioner cabinets, Farm equipments, Garden Furniture, Playground item, Automobile Accessories, Architectural items, Light Fixtures etc.

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	:	Pure Polyester - TGIC	
Gloss @ 60° (ASTM D-523)	:	Glossy Finish	– 85 % and above
		Semi-glossy Finish	– 50 – 70 %
		Satin Finish	– 25 – 50 %
		Matt Finish	– 05 – 25 %
Particle Size	:	Suitable for Corona application	
Specific Gravity	:	1.4 – 1.6 (Depending upon the colour & Finish)	
Theoretical Coverage	:	8 – 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

Powder Performance Test:

• Impact Resistance (ASTM D 2794)	-	100 kg.cm passes (No surface defect on substrate)
• Flexibility (ASTM D 552)	-	180deg. 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)

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. 1000 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.

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