



# JINHU COLOR POWDER COATING CO.LTD

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## TECHNICAL DATA SHEET

### GLOSSY DURABLE POLYESTER POWDER COATING

( FH-GP Series )

#### INTRODUCTION

FH-GP Series is a thermoset powder coating based on saturated polyester resins specially selected for exterior use. It is formulated to give properties of good flow-out and satin or glossy finish. Its outstanding resistance to ultra-violet light and atmospheric aging make it highly decorative and durable in outdoor environment, It is widely used for outdoor furniture, architectural hardware, air-conditioners, bicycle frames, garage doors and signboards etc .

#### GLOSS AND COLOR RANGE

- Gloss levels range from 50- 90% and above
- A wide range colors are available , certain color is subject to the technical approval .

#### APPLICATION SCHEDULE

- Applied by electrostatic spraying gun that can provide negative tension of 60-80 kV.
- Curing schedule :10 minutes at 200°C (metal temperature )
- Optimal film thickness : 60 - 80 um

#### POWDER PROPERTIES

- Specific gravity : 1.25 - 1.75 (depend on colors)
- Particle size distribution(Laser Particle size analyser) :Less than 5% above 100 um  
50 – 65% above 32 um :  
Average particle size : 35- 45um

#### COATING PROPERTIES

The following are typical properties determined on 0.8 mm gauge degreased galvanised steel

- Film thickness (ISO 2178) : 60 - 80 µm
- Flow out : Good
- Gloss (ISO 2813, 60°) : >50 %
- Adhesion (ISO 2409) : GT= 0
- Pencil hardness(ASTM D3363 ) : H – 2H
- Direct and reverse impact (ASTM D2794) : 50kg.cm



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- Salt spray Resistance ( ASTM B117, 1000hrs)  
(Maximum undercutting ,1 mm ): No blistering
- Humidity Resistance (ASTM D2247,1000 hrs): No blistering or loss of adhesion
- Chemical Resistance : Film unchanged  
(48 hours contact with the coating at ambient temperature)  
(Hydrochloric acid 10%,Hydrogen sulphide (saturated),Hydrogen peroxide 40 vol,Ammonium hydroxide 33%,Sodium hydroxide5%,Tartaric acid 5%,Citric acid 5%, Lactic acid 5%, Ethanol, n-Butanol)

## SUBSTRATES AND PRE-TREATMENT

In order to obtain optimal anti-corrosion properties, it is recommended to apply a chemical pretreatment prior to powder coating application.

- Ferrous metals(cold rolled steel, cast iron etc.): Iron or zinc phosphatation
- Zinc surfaces(galvanized steel, zinc alloy) : Chromatisation or zinc phosphatation
- Aluminum alloys : Chromatisation

## STORAGE

- Under dry conditions ,good ventilation at a temperature not exceeding 25 C,humidity < 60%.
- Storage period recommended should not exceed 6 months,in case exceeding 6 months without affecting their free flowing properties, the powder will still have optimal characteristics.
- Should be protected from excessive heat,humidity,water and contamination with foreign materials such as powder, dust, dirt, etc.
- Any leftover powder should be kept in an appropriate area that is cool and dry. Do not expose to the air too long as the powder properties may deteriorate with the moisture.