SUPER MATT EPOXY POLYESTER POWDER COATING  
( FH-SMH Series )

INTRODUCTION

FH-SMH Series is an epoxy-polyester-based thermosetting powder coating, formulated to offer a super matt finish with excellent flowing out. This makes it suitable for indoor use as a decorative coating where very low gloss finished are desired.

GLOSS AND COLOR RANGE

- Gloss levels range: < 10% at 60° angle.
- Full color range is available.

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
- Gloss (ISO 2813, 60°): <10%
- Adhesion (ISO 2409): GT = 0
- Pencil hardness (ASTM D3363): 2H – 3H
- Direct impact (ASTM D2794): 30kg.cm
- Salt spray Resistance (ASTM B117, 500hrs) (Maximum undercutting, 1 mm): No blistering
- Humidity Resistance (ASTM D2247, 500 hrs): No blistering or loss of adhesion
- Chemical Resistance: Resistant to some common inorganic acids, bases and salts, organic acids and solvents.
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): Chromatation or zinc phosphatation
- Aluminum alloys: Chromatation

STORAGE

- Should be stored under dry conditions with good ventilation at a temperature not exceeding 30 °C.
- 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.