

TECHNICAL DATA SHEET

DURABLE POLYURETHANE POWDER COATING

(Florid Series)

INTRODUCTION

Florid Series is outdoor durable polyurethane powder coating which offers outstanding film appearance and toughness with superior weathering properties. They are true alternative to high quality liquid paints and exhibits superior chip, mar and scuff resistance in addition to corrosion and chemical resistance.

GLOSS AND COLOR RANGE

- Gloss levels range from satin to high gloss :as low as 50% to more than 90% at 60° .
- 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 -90 um

POWDER PROPERTIES

- Specific gravity : 1.40 - 1.75 (depend on colors)
 - Particle size distribution(Laser Particle size analyser) :Less than 10% above 100 um
50 – 65% above 32 um :
- Average particle size : 35 - 50um

COATING PROPERTIES

The following are typical properties determined on 0.8 mm gauge degreased zinc phosphated steel .

- Film thickness (ISO 2178) : 60 - 90 µm
- Gloss (ISO 2813, 60°) : 50 to 90% and above
- Adhesion (ISO 2409) : GT= 0
- Pencil hardness(ASTM D3363) : H – 2H
- Direct and reverse impact (ASTM D2794) : > 50kg.cm
- Salt spray Resistance (ASTM B117, 800hrs)
(Maximum undercutting ,1 mm) : No blistering
- Humidity Resistance (ASTM D2247,500 hrs): No blistering or loss of adhesion
- Chemical Resistance(200hrs at ambient temperature)
5% Sodium Hydroxide, 5 % Sulphuric Acid : Film unchanged

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

- 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.