

OXYPLAST POLYESTER POWDER COATING PE40/FE

A low-bake powder coating with excellent degassing characteristics



DESCRIPTION

OXYPLAST PE40/FE is a new range of polyester powder coatings with excellent degassing characteristics, which can be cured at low temperatures. The adapted reactivity and rheology during curing at low temperature ensure that porous substrates, like hot dip galvanized steel or metallized steel (duplex system) or cast iron, can be applied with a minimum of craters, air-bubbles or pinholes.

The obtained coatings show an excellent outdoor resistance.

PROPERTIES OF THE POWDER

- **Density (g/cm³)** (ISO 8130-2:1992) 1,2 - 1,60 (depending on the colour)
- **Particle size distribution** Optimised for electrostatic application and in function of the coating aspect.
- **Storage** Dry, max. 25 °C: at least 1 year
- **Application** With Corona-gun/ Film thickness: 60 - 100 µm
- **Curing schedule**

In a suitable convection oven, whether or not combined with an infrared unit.

15 min. at 150 °C (metal temperature)
 10 min. at 160 °C (metal temperature)
 5 min. at 180 °C (metal temperature)

A minimum curing temperature of 150°C is needed for a full development of coating properties.

MECHANICAL PROPERTIES OF THE COATING

- **Substrate** Cold rolled steel, degreased
- **Curing schedule** 15 min. 150 °C (metal temperature)
- **Film thickness** (ISO 2808:1997) 60 ± 5 µm
- **Gloss** 60° (ISO 2813:1994) 60 - 80 %
- **Adhesion** (ISO 2409:2007) Gt = 0
- **Buchholz hardness** (ISO 2815:1973) > 80
- **Pencil hardness** (ASTM D3363-00) H-2H
- **Clemen hardness** (ISO 1518:1992) > 2 kg
- **Erichsen** (ISO 1520:1993) > 5 mm
- **Impact (reverse)** (ISO 6272:1993) > 30 kg.cm
- **Conical mandrel** (ISO 6860:1984) < 20 mm

**ANTICORROSIVE
PROPERTIES**

To guarantee an optimal adhesion and an optimal corrosion protection – depending on the substrate – an optimal pre-treatment must be applied:

- Steel (indoor) : iron phosphate amorphous
- Steel (outdoor) : zinc phosphate crystalline,
or better: tri-cationic phosphatation
- Galvanized steel (Zinc) : chromatisation, or better: tri-cationic phosphatation
- Metallized Steel : –
- Aluminium : chromate treatment (DIN 50939) or Qualicoat-
certified chromium-free pre-treatment

**ANTICORROSIVE
PROPERTIES**

OXYPLAST PE40/FE is not compatible with other standard polyester powder coatings (f.ex. OXYPLAST PE50). A good cleaning of the spraying equipment is needed.

This information is given in good faith. A warranty, expressed or implied, cannot be supplied as results may vary depending on application conditions.