DATA SHEET 1492
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INFRALIT EP/PE 8241, 8242, 8245, 8246

low temperature curing epoxy/polyester powder

PAINT TYPE

INFRALIT EP/PE 8241, 8242, 8245, 8246 are powder coatings based on epoxy and polyester resins that at elevated temperatures will melt, cure and form the final paint films.

USAGE

INFRALIT EP/PE 8241, 8242, 8245, 8246 Epoxy/Polyester Powders are suitable to use in metal industry e.g. on light fittings, instruments, lattice trays, refrigeration equipment etc. applications.

SPECIAL PROPERTIES

The mechanical and chemical resistance and the anti-corrosive properties of INFRALIT EP/PE 8241, 8242, 8245, 8246 are almost equal to those of epoxies. On outdoor exposure like epoxy/polyester powders in general, has tendency towards matting down (chalking) similar to that of pure epoxies. On the other hand, it's tendency to yellow on overbaking and exposure to ultraviolet light is minor as compared with epoxy powders.

TECHNICAL DATA

Spraying

Variant EP/PE...-00 is suitable for both tribo charging and for corona charging sprays. Variants...-02 and...-09 only for corona charging sprays.

Colours

By agreement.

Gloss grades

EP/PE 8241 - effect resembling sandpaper
EP/PE 8242 - effect resembling hammer varnish
EP/PE 8245 - gloss
EP/PE 8246 - semigloss

Solids

100%

Specific gravity

Abt. 1,25 - 1,70 kg/dm³ depending on colour

Spreading rate

4 - 15 m²/kg depending on the film thickness

Film thickness

One application gives a film thickness of 40 - 150 µm.

Curing time

Minimum curing times and metal temperatures:
20 min/130°C
10 min/145°C
5 min/165°C

Packages

15 kg or 20 kg according to the specific gravity of the powder.

Storage

In dry and cool conditions.

SAFETY PRECAUTIONS

The powder itself is non-flammable, but with air it can form an explosive mixture that in presence of adequate ignition energy ignites. The lower explosive limit is about 70 g/m³ (Bundesanstalt für Materialprüfung). Ventilation of the spray booth should be adjusted so that the concentration of powder in the air is less than 50% of the lower explosive limit value. On calculation of the powder concentration in the spray booth, the powder deposited on the workpiece is not taken into account. In order to avoid the discharge of powder from the booth into adjacent working spaces, the speed of air flow in the apertures of the booth must not fall below 0.5 m/s.
Spray painters should wear dust masks and protective gloves. Any spatter of powder on the skin should be washed off with water and soap.

PTO

DIRECTION FOR USE

Surface preparation

COLD-ROLLED SURFACES: Degrease by trichloroethylene vapour bath or alkali wash. Zinc phosphating or a suitable conversion treatment is also needed if the workpiece will be subjected to exceptional strain.

ALUMINIUM SURFACES: Degrease by e.g. alkali wash. Surfaces to be exposed to severe atmospheric conditions should also be chromated or alternatively treated with a suitable conversion treatment.

HOT-DIP-GALVANIZED AND ZINC-ELECTROPLATED SURFACES: Remove grease and white rust by e.g. alkali wash. Depending on exposure conditions, zinc phosphating or chromating is also required.

HOT-ROLLED SURFACES AND CASTINGS: Remove grease and dirt. Blast-clean at least to grade Sa 2½ (ISO 8501-1). The surface profile at least medium (G) ISO 8503-2 . Remove the dust.

FILM PROPERTIES

The tests have been done with series EP/PE 8245. Substrate cold-rolled steel, curing time 5 min/165°C (metal temperature):

Physical properties

Flexibility (Erichsen, ISO 1520)	7 mm
Impact resistance (Erichsen, SFS EN ISO 6272)	
- direct	40 kgcm
- reverse	40 kgcm
Pendulum hardness (König, SFS 3642)	180 s
Flexibility (SFS ISO 6860)	less than 5 mm
Adhesion (cross-cut test, EN ISO 2409)	GT 0

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