INFRALIT EP/PE 8085-17

Epoxy/polyester powder

INFRALIT EP/PE 8085-17 is a powder coating based on a mixture of solid epoxy and polyester binders. At elevated temperature the powder will melt, cure and form the final paint film.

Suitable for coating metal industry products, such as lighting fixtures, apparatuses, wire gratings and refrigerating fixtures.

INFRALIT EP/PE 8085-17 forms a film with mechanical and chemical resistance and good anticorrosive properties. On outdoor exposure INFRALIT EP/PE 8085-17 epoxy/polyester powder has a tendency towards matting down (chalking) similar to that of pure epoxies. On the other hand, its tendency to yellow on overbaking and exposure to heat and ultraviolet light is minor as compared with epoxy powders.

TECHNICAL DATA

Fields of application	Ship, Machinery, Steel constructions, Furniture, Household appliances
Recommended substrate	Steel, Zinc, Aluminium
Binder	Epoxy-polyester
Solids	100%
Practical spreading rate	4 - 15 m^2/kg depending on the film thickness.
Film thickness	One application gives a film thickness of 60 - 120 µm. The optimal film thickness must be defined case-specifically by test applications. In some cases the film thickness might exceed the previously mentioned maximum value.
Colours	By agreement.
Gloss (60°)	Gloss
Density	Approx. 1.25 - 1.80 kg/dm^3 depending on colour.
Storage	The storage life is minimum 18 months in dry and cool conditions when the temperature during storage and transportation is max. +25°C. Take special care during high temperature seasons. Avoid storing close to heat sources and heaters in trucks and storages. Don't store in direct sunlight. The recommended expiry date of the powder coating that has been stored according to the instructions is shown on the package label.
Packaging	15 kg or 20 kg according to the density of the powder.

DIRECTION FOR USE

Surface preparation	STEEL SURFACES: Remove grease and dirt. After that blast-cleaning at least to preparation grade Sa 2½ (ISO 8501-1) and/or a suitable chemical pretreatment. ALUMINIUM SURFACES: Remove grease and dirt. After that chromating or alternatively a suitable chemical pretreatment. HOT-DIP-GALVANIZED AND ZINC-ELECTROPLATED SURFACES: Remove grease, dirt and white rust by e.g. alkali wash. Depending on exposure conditions, chromating or alternatively a suitable chemical pretreatment is also required.
Application method	Corona charging spray
Curing time	15 min/180 °C (substrate temperature) Curing time indicates the time needed for the curing of the coating. Curing parameters and oven type may effect the colour and gloss of the coating. The temperature of the powder coating has to reach the temperature inside the paint shop before the package is opened. The application properties may be deteriorated, if the temperature of the powder is lower than this.

HEALTH AND SAFETY

Safety and precaution measures	See safety data sheet. 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 explosion limit of typical powder coatings is between 20 g/m³ and 80 g/m³ (CEPE, Safe Powder Coating Guideline 8th Edition, 2020). 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.

FILM PROPERTIES

Typical values	Substrate cold-rolled steel, curing time 15 min/180 °C:

Bend test (Conical mandrel) SFS ISO 6860, mm	OK
Cross-cut test ISO 2409	GT0
Cupping ISO 1520, mm	7.0
Impact resistance, ISO 6272-2, direct, kgcm	40.0
Impact resistance, ISO 6272-2, reverse, kgcm	40.0
Pendulum damping test ISO 1522, s	180.0

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