

INFRALIT PE 8316-05

Zinc polyester powder



INFRALIT PE 8316-05 is a TGIC-free powder coating based on solid polyester resin containing metallic zinc, which has very good anticorrosive properties. At elevated temperature the powder will melt, cure and form the final paint film.

INFRALIT PE 8316-05 is mainly suitable for use on steel surfaces blast-cleaned to preparation grade Sa 2½, when the constructions will be exposed to severely corrosive environments. The product is designed mainly for use as a primer.

INFRALIT PE 8316-05 forms a mechanically resistant paint film that has good anticorrosive properties. The surface can be overcoated with INFRALIT powder coating or some other suitable paint.

Teknos sales department should be contacted if the intention is only to melt the primer before applying the top coat.

Overbaking of INFRALIT PE 8316-05 powder coating must be avoided when overcoating. If the stoving temperature of the primer is higher than 205°C, the adhesion between the coats may be diminished. We recommend that intercoat adhesion is checked when direct fired gas oven is used in two layer painting.

TECHNICAL DATA

Fields of application	Exterior doors, Fences, Machinery, Playgrounds, Steel constructions, Transportation equipment
Recommended substrate	Steel, Zinc
Binder	Polyester
Solids	100 %
Practical spreading rate	Approx. 6 m ² /kg depending on the film thickness.
Film thickness	Min. 60 µm above the peaks of the surface profile. Max. 140 µm above the peaks of the surface profile. 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	Dark grey.
Gloss (60°)	Semi-gloss
Density	2.7 kg/dm ³

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

20 kg.

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.

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.

When INFRALIT PE 8316-05 is used as a primer under other INFRALIT polyester powders, it is recommended that the surface is first sanded with a fine sandpaper to get the best possible adhesion between layers. INFRALIT PE 8316-05 can also be used alone if the grey colour can be accepted. The recommended minimum film thickness is then 80 µm.

Application method

Corona charging spray

Curing time

15 min/190°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. 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. Welding is to be avoided due to the zinc content of the powder.

FILM PROPERTIES

Typical values	Substrate 0.8 mm thick cold-rolled steel, curing 15 min/+190°C, film thickness 70 µm. Testing 1 h after curing:
Bend test (Conical mandrel) SFS ISO 6860, mm	OK
Cross-cut test ISO 2409	GTO
Cupping ISO 1520, mm	7.0
Impact resistance, ISO 6272-2, direct, kgcm	40.0
Impact resistance, ISO 6272-2, reverse, kgcm	40.0

Teknos Group Oy Takkatie 3, P.O.Box 107 FI-00371 Helsinki, Finland Tel. +358 9 506 091

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