

INFRALIT PE 8340-00

Polyester powder

INFRALIT PE 8340-00 is a TGIC-free powder coating based on solid high quality polyester resin. At elevated temperature the powder will melt, cure and form the final paint film.



INFRALIT PE 8340-00 is suitable for steel and aluminium constructions in objects where good weather resistance is required. INFRALIT PE 8340-00 forms a mechanically and chemically resistant paint film which has good corrosion resistance and very good colour stability and gloss retention also in outdoor conditions.

TECHNICAL DATA

Fields of application	Windows, Exterior doors, Balcony elements, Fences, Garden furniture, Machinery, Steel constructions, Transportation equipment, Roof
Recommended substrate	Aluminium, Steel, Zinc
Binder	Polyester
Solids	100 %
Practical spreading rate	6 - 10 m ² /kg depending on the film thickness.
Film thickness	The recommended film thickness is 60 - 100 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°)	50-65
Density	Approx. 1.4 – 1.8 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

Tribo charging spray, Corona charging spray

Curing time

10 min/180°C (substrate temperature)

20 min/170°C (substrate temperature)

6 min/200°C (substrate temperature)

Curing time indicates the time needed for the curing of the coating.

In the determination of a suitable curing cycle, it is also possible to utilize the calculation of the curing index supported by equipment intended for oven temperature measurements. In this case, for the calculation of the curing index, the minimum curing temperature of 160 °C should be set in the analysis program for the powder in question to support the above guideline values. The paint film can be considered fully cured when the index value exceeds 100.

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.

FILM PROPERTIES

Typical values	Substrate 0.6 mm thick chromated aluminium, curing 10 min/+180°C, film thickness 60 µm. Testing 1 h after curing:
Cross-cut test ISO 2409	GT0
Cupping ISO 1520, mm	6.0
Impact resistance, ISO 6272-2, direct, kgcm	40.0
Impact resistance, ISO 6272-2, reverse, kgcm	40.0
Bend test (cylindrical mandrel) ISO 1519, mm	5.0

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