

# INFRALIT PE 8316-21

## Polyester powder

INFRALIT PE 8316-21 is a TGIC-free powder coating based on solid polyester resin. At elevated temperature the powder will melt, cure and form the final paint film.



INFRALIT PE 8316-21 is suitable for objects which require good weather resistance and good mechanical properties.

INFRALIT PE 8316-21 forms a mechanically and chemically resistant paint film that has good anticorrosive properties. The surface has good colour and gloss retention even in outdoor conditions.

### APPROVALS:

EN 45545-2:2013+A1:2015 Fire protection on railway vehicles. Requirement sets R1, R7, R10 & R17 - Hazard levels HL1, HL2 & HL3.

NOVA GREY MB 7350 fulfils the specification MBN 61100.

## TECHNICAL DATA

<b>Certificates, approvals and classification</b>	EN 45545-2
<b>Fields of application</b>	Chassis parts for commercial vehicles, Machinery, Steel constructions, Transportation equipment
<b>Recommended substrate</b>	Steel, Zinc, Aluminium
<b>Binder</b>	Polyester
<b>Solids</b>	100 %
<b>Practical spreading rate</b>	6 - 10 m <sup>2</sup> /kg depending on the film thickness.
<b>Film thickness</b>	The recommended film thickness is 80 - 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.
<b>Colours</b>	NOVA GREY MB 7350 and by agreement.
<b>Gloss (60°)</b>	60-70 NOVA GREY MB 7350: 55-65, Semi gloss, smooth
<b>Density</b>	Approx. 1.50 - 1.75 kg/dm <sup>3</sup> 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**

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/m<sup>3</sup> and 80 g/m<sup>3</sup> (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.

## ADDITIONAL INFORMATION

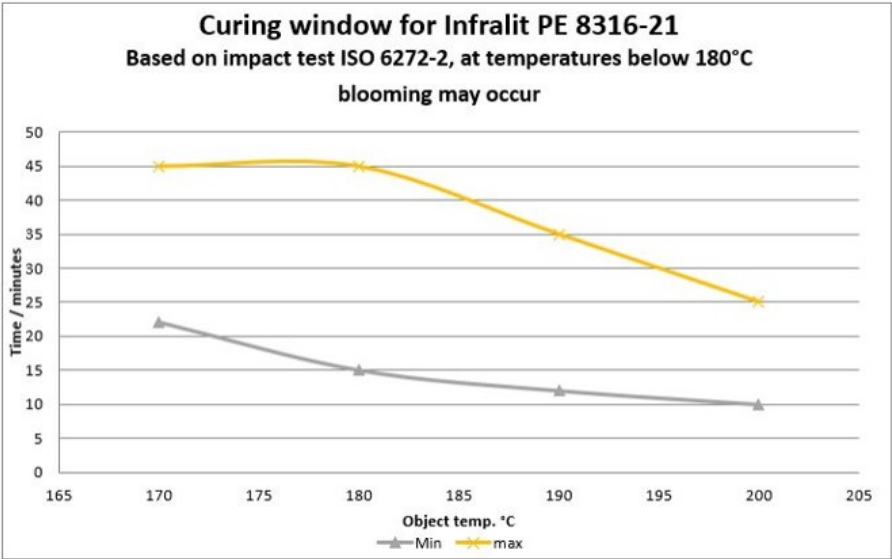
### Additional information

Glass transition temperature of the cured film:  $\geq 73^{\circ}\text{C}$  (ISO 11357)

## FILM PROPERTIES

Typical values	Substrate 0.8 mm thick cold-rolled steel, curing 15 min/+180°C, film thickness 70 µm. Testing 1 h after curing:
Cross-cut test ISO 2409	GTO
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

THEORETICAL APPLICATION WINDOW



Temperature (°C)	Time (min)	
	min.	max.
170	22	45
180	15	45
190	12	35
200	10	25

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