

**INFRALIT PE 8315-08, 8316-08,
8317-08****flexible polyester powder**

PAINT TYPE	INFRALIT PE 8315-08, 8316-08 and 8317-08 are TGIC-free polyester powder coatings based on polyester resin. At elevated temperatures the powders melt, cure and form the final paint film.
USAGE	INFRALIT polyester powders are suitable for product coating within the metal industry for objects that require a weather resistant coating that will not yellow on exposure to heat or ultraviolet light. Examples of use are e.g. constructions that are permanently outdoors. The suitability of the metallic colours of polyester powders for outdoor use should be discussed with the paint manufacturer.
SPECIAL PROPERTIES	<p>INFRALIT polyester powders form a mechanically and chemically resistant paint film that has good anticorrosive properties. The surface has good gloss retention even in outdoor conditions.</p> <p>INFRALIT PE 8315-08, 8316-08 and 8317-08 flexible polyester powders are designed for post forming after powder coating. Powders form a paint film which has good flexibility for bending and forming.</p> <p>EN 45545-2:2013+A1:2015 Fire protection on railway vehicles. Requirement sets R1, R7, R10 & R17 - Hazard levels HL1, HL2 & HL3.</p>
TECHNICAL DATA	
Spraying	Suitable for both tribo charging and corona charging sprays.
Colours	By agreement.
Gloss grades	PE 8315 - gloss PE 8316 - semigloss PE 8317 - matt
Solids	100%
Specific gravity	Abt. 1,25 - 1,70 kg/dm ³ depending on colour
Spreading rate	6 - 10 m ² /kg depending on the film thickness
Film thickness	The recommended film thickness is 60 - 80 µm. When the film thickness exceeds 80 µm, it may result in poorer post forming flexibility.
Curing time	20 min/170°C (metal temperature) 10 min/180°C (metal temperature). 6 min/200°C (metal temperature).
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 for polyester powder is about 80 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.

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 required if the workpiece is destined for outdoor exposure or will be subjected to exceptional strain indoors.

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.

Any post forming and bending should be performed within 3 months of application. In low temperatures (below 10 °C) the flexibility and formability of the paint film are weakened.

FILM PROPERTIES

Test after 1 h curing, substrate 0.6 mm thick chromated aluminium, curing 10 min/180 °C (metal surface), film thickness 70 µm:

Physical properties

Flexibility (Erichsen, ISO 1520)	over 7 mm
Impact resistance (ASTM D 2794; 15.9 mm diameter)	
- direct	above 40 kgcm
- reverse	above 40 kgcm
Flexibility (ISO 1519)	less than 4 mm
Adhesion (cross-cut test, EN ISO 2409)	GT 0
Flexibility (ISO 6860)	less than 1 mm

The information of this data sheet is normative and based on laboratory tests and practical experience. Teknos guarantees that the product quality conforms to our quality system. Teknos accepts, however, no liability for the actual application work, as this is to a great extent dependent on the conditions during handling and application. Teknos accepts no liability for any damage resulting from misapplication of the product. This product is intended for professional use only. This implies that the user possesses sufficient knowledge for using the product correctly with regard to technical and working safety aspects. The latest versions of Teknos data sheets, material safety data sheets and system sheets are on our home pages www.teknos.com.



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