

INFRALIT EP 8024-06

Epoxy Powder

PAINT TYPE	INFRALIT EP 8024-06 is a coating based on special epoxy resin and phenolic hardener. At elevated temperatures the powder melts, cures and forms the final paint film.
USAGE	INFRALIT EP 8024-06 Epoxy Powder is used as primer when coating steel pipes with polyolefines. The powder can also be used for single layer coating on pipes. The powder adheres well to itself, so the coating can be done in two operations.
SPECIAL PROPERTIES	The resultant paint film has excellent mechanical properties, i.e. good abrasion resistance, impact resistance and elasticity. It is not scratched easily and has very good resistance to action by acids, alkalis, greases and solvents. Its anticorrosive properties are also good.

TECHNICAL DATA

Colours	Grey
Gloss grades	Gloss
Average particle size, D (v, 0.5) (laser diffraction method)	abt. 60 µm
Gel time	180°C / 35 - 50 s (the method used by Teknos). The gel time will fluctuate greatly depending on the method used, and it should be always checked by the user's own method.
Solids	100%
Specific gravity	N. 1,5 kg/dm ³
Spreading rate	1,5 - 7 m ² /kg depending on the film thickness
Film thickness	100 - 500 µm
Curing time	10 min/180°C (metal temperature).
Glass transition temperature of the cured film	100 ± 2°C
Packages	20 kg
Storage	In dry and cool conditions max. 12 months depending on the temperature (5 - 25°C).

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 epoxy powder is about 60 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 and application**

COLD-ROLLED SURFACES: Degrease by trichloroethylene vapour bath or alkali wash. Application by electrostatic spraying to a film thickness of 80 - 150 µm.

HOT-ROLLED SURFACES AND CASTINGS: Remove grease and dirt. Blast-clean at least to grade Sa 2½ (ISO 8501-1). The surface profile must be at least ISO 8503-2 medium (G). Remove the dust. Preheat the blast-cleaned workpieces before application. Maximal temperature during preheating is +240°C, recommended surface temperature at application is +190 - 200°C.

The recommended film thickness for a single layer coating is 250 - 450 µm.

FILM PROPERTIES

The following results have been obtained with a film that has been cured 10 min/+180°C, film thickness 80 µm:

Physical properties

Impact resistance (SFS EN ISO 6272)	
- direct	80 in.-lb
- reverse	80 in.-lb
Flexibility (SFS ISO 6860)	less than 5 mm
Adhesion (cross-cut test, EN ISO 2409)	GT 0
Adhesion (Sæberg adhesion tester)	20,6 N/mm ²
- area of button 1,13 cm ²	
- substrate: 10 mm thick panel blasted to Sa 2½	
- coating thickness about 200 µm	
Corrosion resistance (ISO 7253)	
- substrate: panel blasted to Sa 2½	
- duration of test 1000 h	
- detachment from the cut	5 mm
- blistering (ISO 4628-2)	0
- rust scale (ISO 4628-2)	Ri 0
Water absorption +20°C/2 months	1.1 %
Cathodic Disbonding (ASTM G8)	5.5 mm
- three-layer coating	
- 48 h, 65°C	

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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