

# INFRALIT EP 8027

## Epoxy Powder

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| <b>PAINT TYPE</b>         | INFRALIT EP 8027 is a powder coating based on epoxy resin, which at elevated temperatures melts, cures and forms the final paint film.   |
| <b>USAGE</b>              | INFRALIT EP 8027 Epoxy Powder is used for product coating within the metal industry, e.g. for lighting fixtures, apparatuses, furniture, shop outfittings, agricultural and household appliances. Also suitable for use on many special areas in the heavy metal and chemical industry.  |
| <b>SPECIAL PROPERTIES</b> | The resultant paint film has excellent mechanical properties, i.e. good abrasion and impact resistance and elasticity. It is not scratched easily and withstands action by acids, alkalis, greases and solvents. Its anticorrosive properties are also good. On outdoor exposure the paint film has a tendency towards chalking. This phenomenon, however, affects only the appearance, not the protective power. An alternative material for outdoor use is INFRALIT Polyester Powder, which chalks only very little. |

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**TECHNICAL DATA**

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| <b>Spraying</b>         | General variant EP 8027-00 is suitable for all corona charging and for most tribo charging sprays. Variant 02 is only for corona charging spray. Variant 06 has intensified qualities for tribo charging sprays. |
| <b>Colours</b>          | By agreement.  |
| <b>Gloss 60°</b>        | 0 - 40   |
| <b>Solids</b>           | 100%   |
| <b>Specific gravity</b> | Abt. 1,3 - 1,7 kg/dm <sup>3</sup> depending on colour  |
| <b>Spreading rate</b>   | 4 - 15 m <sup>2</sup> /kg depending on the film thickness  |
| <b>Film thickness</b>   | One application with the standard grade gives a film thickness of 40 - 150 µm.   |
| <b>Curing time</b>      | 10 min/200°C (metal temperature)<br>15 min/190°C (metal temperature).  |
| <b>Melting point</b>    | abt. 100°C   |
| <b>Packages</b>         | 15 kg or 20 kg according to the specific gravity of the powder.  |
| <b>Storage</b>          | In dry and cool conditions.  |

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**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/m<sup>3</sup> (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**

Remove all grease and dirt with care. Mere degreasing can be done e.g. by trichloroethylene vapour bath or alkali wash. Blast-clean or etch and phosphate rusty and mill-scaled surfaces.

The profile of the blast-cleaned surface must be at least medium (G). See standard ISO 8503-2.

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

**ALUMINIUM SURFACES:** Degrease by e.g. alkali wash. Surfaces to be exposed to severe atmospheric conditions should also be chromated.

**HOT-DIP-GALVANIZED AND ZINC-ELECTROPLATED SURFACES:** Remove grease and white rust by e.g. alkali wash. Depending on exposure conditions, zinc phosphating or chromating is also required.

**HOT-ROLLED SURFACES AND CASTINGS:** Remove grease and dirt. Blast-clean at least to grade Sa 2½ (ISO 8501-1). The surface profile at least medium (G) ISO 8503-2. Remove the dust.

Blast-cleaning is also recommended for other surfaces, such as cast iron, whenever it is practicable, since it provides an excellent adhesion for epoxy powder.

**FILM PROPERTIES**

The following results have been obtained with the standard grade, curing 10 min/200°C, film thickness 50 µm:

**Physical properties**

|   |                   |
|---|-------------------|
| Flexibility (Erichsen, ISO 1520)              | more than 7 mm    |
| Impact resistance (Erichsen, SFS EN ISO 6272) |                   |
| - direct                                      | more than 20 kgcm |
| - reverse                                     | more than 20 kgcm |
| Flexibility (SFS ISO 6860)                    | less than 5 mm    |
| Adhesion (cross-cut test, EN ISO 2409)        | GT 0              |

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](http://www.teknos.com).



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