

# INFRALIT EP 8029-05

## Epoxy Powder

|                           |   |
|---------------------------|---|
| <b>PAINT TYPE</b>         | INFRALIT EP 8029-05 is finely pulverized powder based on special epoxy resin and phenolic hardener. At elevated temperatures the powder melts, cures and forms the final paint film.  |
| <b>USAGE</b>              | INFRALIT EP 8029-05 Epoxy Powder is used for demanding special product coating.   |
| <b>SPECIAL PROPERTIES</b> | The resultant paint film has excellent mechanical properties, i.e. good abrasion and impact resistance and elasticity. The film is not scratched easily and it 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.  |
| <b>Colours</b>            | Variant EP 8029-05 by agreement   |
| <b>Gloss grades</b>       | EP 8029-05 semigloss/gloss  |
| <b>Solids</b>             | 100%  |
| <b>Specific gravity</b>   | Abt. 1,5 kg/dm <sup>3</sup>   |
| <b>Spreading rate</b>     | 1,5 - 3 m <sup>2</sup> /kg depending on the film thickness  |
| <b>Film thickness</b>     | 200 - 450 µm  |
| <b>Curing time</b>        | 10 min/180°C (metal temperature).   |
| <b>Melting point</b>      | abt. 100°C  |
| <b>Packages</b>           | 20 kg   |
| <b>Storage</b>            | In dry and cool conditions.   |
| <b>SAFETY PRECAUTIONS</b> | <p>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.</p> <p>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.</p> <p>Spray painters should wear dust masks and protective gloves. Any spatter of powder on the skin should be washed off with water and soap.</p> |

**DIRECTION FOR USE****Surface preparation and application**

**COLD-ROLLED SURFACES:** Degreasing and phosphating or a suitable conversion treatment. 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 at least medium (G) ISO 8503-2. Remove the dust. Preheat the blast-cleaned workpieces before application. Maximal temperature during preheating is +240°C, recommended surface temperature at application is +230°C. The recommended film thickness is 200 - 450 µm depending on the service conditions. If porosity measurements are made, they are to be done according to the recommendation (5 March 1985) of Suomen Korroosioyhdistys r.y. (Finnish Corrosion Society). Pores are to be repaired with e.g. two-pack epoxy paint.

**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  | 60 kgcm                           |
| - reverse                                       | 60 kgcm                           |
| Pendulum hardness (König, SFS 3642)             | 220 s                             |
| Flexibility (SFS ISO 6860)                      | less than 5 mm                    |
| Buchholz hardness (DIN 53153)                   | 100                               |
| Abrasion resistance (Taber Abraser)             | loss of mass 30 mg/1000 rotations |
| Adhesion (cross-cut test, EN ISO 2409)          | GT 0                              |
| Adhesion (Sæberg adhesion tester)               | 20,6 N/mm <sup>2</sup>            |
| - area of button 1,13 cm <sup>2</sup>           |                                   |
| - substrate: 10 mm thick panel blasted to Sa 2½ |                                   |
| Corrosion resistance (ISO 7253)                 |                                   |
| - substrate: panel blasted to Sa 2½             |                                   |
| - duration of test 1000 h                       |                                   |
| - coating thickness about 200 µm                |                                   |
| - detachment from the cut                       | 5 mm                              |
| - blistering (ISO 4628-2)                       | -                                 |
| - rust scale (ISO 4628-2)                       | 10                                |
| Water absorption +20°C/2 months                 | 1.1 %                             |

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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