

INFRALIT EP/PE 8092-01

Semiconductive epoxy/polyester powder

INFRALIT EP/PE 8092-01 is a powder coating based on a mixture of solid epoxy and polyester binders. At elevated temperature the powder will melt, cure and form a semiconductive paint film.



Developed for areas within the electronics industry where static electricity forms a problem.

The surface resistance of INFRALIT EP/PE 8092-01 is 1.0 - 10 MOhm depending on the film thickness and with 100 voltage.

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 chemicals, greases and solvents. Its anticorrosive properties are also good.

TECHNICAL DATA

Certificates, approvals and classification	SP-Method 2472
Fields of application	Furniture
Recommended substrate	Steel, Zinc, Aluminium
Binder	Epoxy-polyester
Solids	100%
Practical spreading rate	7 - 9 m ² /kg depending on the film thickness.
Film thickness	<p>The recommended film thickness is 70 ± 20 µm. Too thick films are to be avoided, as they weaken the special properties.</p> <p>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.</p>
Colours	By agreement.
Gloss (60°)	Semi-gloss
Density	Approx. 1.6 kg/dm ³ depending on colour.
Storage	<p>The storage life is minimum 18 months in dry and cool conditions when the temperature during storage and transportation is max. +25 °C.</p> <p>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.</p>
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

20 min/160°C (substrate temperature)

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/m³ and 80 g/m³ (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.

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:

Bend test (Conical mandrel) SFS ISO 6860, mm	OK
Cross-cut test ISO 2409	GTO
Cupping ISO 1520, mm	7.0
Impact resistance, ISO 6272-2, direct, kgcm	40.0
Impact resistance, ISO 6272-2, reverse, kgcm	40.0

Teknos Group Oy Takkatie 3, P.O.Box 107 FI-00371 Helsinki, Finland Tel. +358 9 506 091

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