SELF-LEVELLING ANTISTATIC EPOXY APPLICATION

INFORMATION ON USAGE

Name
Self-levelling antistatic epoxy application

Description
Modified epoxy resin based, medium thickness, continuous coating for antistatic floors. Pigmented, waterproof, solvent free, containing conductive fillers for electrical conductivity. The synergy between the antistatic properties and the high mechanical and chemical performance make this application particularly suited to areas such as those in electronic industries, hospitals and wherever machinery is used that requires low conductivity flooring

Principal application
- *hospitals and operating theatres*
- *chemical and pharmaceutical industries*
- *precision engineering industries*
- *electrical and electronic engineering*

Suitability of the substrate (concrete)

Residual moisture content:	*‹ 5%*
Compressive strength:	*› 220 kg/cm²*
Surface resistance to tearing:	*› 1.5 MPa*

Total thickness of coating
About 2000 microns

CHARACTERISTICS

Application components

Stabiliser / Primer:	*Epoxy Fondo in various versions*
Mesh of copper strips	
Antistatic primer:	*Epoxy Fondo AS*
Wear Layer:	*Epoplast AS*

APPLICATION

Specific tools and preparation techniques are applied according to the underlying substrate (new or old) and its physical format (concrete, stoneware, klinker, etc.)

1. Preparation of the substrate
Proper analysis of the substrate is essential to selecting the ***right*** ***preparation method*** ***chosen*** ***from among those available***

- *Non destructive preparation of the surfaces using a special triple-head sander with silicon-carbide tools or a sanding machine. This involves removing any loose parts of the surface and, where possible, eliminating surface roughness, thus preparing the substrate for subsequent coating*
- *Dry blasting of the surface with metal shot of various dimensions, by means of dust trap systems, to decontaminate the substrate and make it ready for subsequent treatment. This treatment also directly removes all those parts of the substrate that are poorly adhering and/or loose*

- *Scarification using mechanical equipment with widia tools to remove those parts of the concrete that are poorly adhering and/or loose or to abrade ceramic enamel*

2. Stabiliser / Primer

- *Apply the specific epoxy primer, Epoxy Fondo with a roller; the quantity must be adequate to the function Recommended use: from 150 to 250 g/m² depending on the absorption capacity of the substrate on which it is applied*

3. Intermediate layer (approximately 24 hours after stabiliser / primer)

- *General skimming to render the surfaces uniform and increase their mechanical resistance by applying a layer of Epoxy Fondo mortar, obtained by mixing Epoxy Fondo with quartz extender Quarzo 06 in a ratio of 1 : 0.7 (Epoxy Fondo 1 kg/m²: Quarzo 06 0.7 Km/m²)*

4. Mesh of copper strips (approximately 24 hours after the intermediate layer)

- *Arrange an adequate square mesh approximately 5 meters per side using suitably grounded, self-adhesive copper strips*

5. Antistatic Primer (after the mesh of copper strips)

- *Apply the antistatic primer, Epoxy Fondo AS, with a roller at a rate of approximately 200 – 250 g/ m²*

6. Wear layer (approximately 24 hours after application of the antistatic primer)

- *Application of 1.5 mm of Epoplast AS using a notched blade.*
- *While the coating is still wet, finish application by running a bubble-buster roller at right angles to the direction of flow (quantity: 2-2.5 kg/m²)*

EPOPLAST AS PHYSICAL / MECHANICAL PROPERTIES

Specific gravity of mixed product
1.5 ± 0.1 g/dm³
Solids content
100 %
Concrete adhesion *› 1.5 Mpa*
Viscosity at approx. 23°C
9000 - 10000cP
Curing time at approx. 23°C
- *Walkability: 24 hours*
- *Light passage: 4 days*
- *Heavy passage: 7 days*

Electrical conduction resistance properties
- *Electrical resistance at 96h/23°C 0.03 - 0.6 MΩ*

EPOPLAST AS CHEMICAL RESISTANCE

RP = Pendulum Hardness reduction (König)
E = Expected
++ = Resistant
+ = Limited resistance
- = Not Resistant
+¬- = Trend

Immersed in:	*B*	*R*
Acetone	*RP*	*-*
Acetic acid 5%	*RP*	*-*
Acetic acid 10%	*RP*	*-*
Citric acid	*E*	*++*

Citric acid 10%	*RP*	*++*
Citric acid 20%	*RP*	*+¬-*
Citric acid 30%	*RP*	*-*
Hydrochloric acid 37%	*RP*	*-*
Chromic acid 10%	*RP*	*+*
Chromic acid 20%	*RP*	*+¬-*
Phosphoric acid 10%	*RP*	*+¬-*
Phosphoric acid 20%	*RP*	*-*
Nitric acid 5%	*RP*	*+*
Nitric acid 10%	*RP*	*+¬-*
Nitric acid 20%	*RP*	*-*
Sulphuric acid 10%	*RP*	*+*
Sulphuric acid 30%	*RP*	*+*
Sulphuric acid 60%	*RP*	*+¬-*
Sulphuric acid 80%	*RP*	*-*
Hydrogen peroxide 3%	*RP*	*++*
Ethyl alcohol	*RP*	*-*
Benzene	*RP*	*-*
Beer	*RP*	*++*
Lime	*E*	*++*
Sodium carbonate	*E*	*++*
Jet fuel	*E*	*++*
Sodium chloride 3%	*RP*	*++*
Sodium chloride 30%	*RP*	*++*
Diesel fuel	*E*	*++*
Glycerine	*RP*	*++*
Aromatic hydrocarbons	*E*	*+*
Sodium hydroxide 50% (at +50°C)	*E*	*+*
Kerosene	*RP*	*+*
Milk	*RP*	*++*
Olive oil	*RP*	*++*
Linseed oil	*RP*	*++*
Lubrication oil	*E*	*++*
Vegetable oils	*E*	*++*
Perchloroethylene	*RP*	*+¬-*
Oil	*RP*	*++*
Vegetable juices	*RP*	*++*
Whisky	*RP*	*+¬-*
Xylene	*RP*	*-*

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