GI 125 Conductive layer

- **Solvent free waterbased conductive layer with low odour**

Product description

Application / Properties

GI 125 is a solvent free, black coloured and conductive dual component reaction plastic based upon an epoxy resin dispersion. The product is used in inside areas, where electrostatic charges have to be discharged due to safety or technical reasons in combination with conductive coatings GI 126, GI 127, or GI 228. Classical areas of application are for example gas operating services, operating theatres, explosion-prone storage halls, ammunition depots, large capacity computer areas and high rack warehouses where rubber-tired forklift trucks are driving.

GI 125 is designed to fulfill the requirements for conductive floorings in combination with our conductive coatings GI 126 or GI 228. In combination with GI 127 the requirements for ESD-floorings are permanently warranted.

A primer is always required. We do recommend the use of GI 110, GI 115 or GI 118 dependent on substrate.

Within its liquid state GI 125 is free of organic solvents, odourless, non-flammable and not explosive.

After curing GI 125 guarantees excellent intermediate layer adhesion to the primed substrate as well as to the following coating. The cured film has to be resistant to abrasion and matt.

Color / Package item / Shelf life

Color:
Black

Package item:
10 kg; other units on request

Shelf life:
12 months after production date
Storage in original sealed units
Dry, cool and free of frost

TECHNICAL DATA:

Density at 23 °C / 50 % rel. hum. of air:
approx. 1.10 g/cm^3

Adhesive strength:
> Concrete fracture

Solids content:
approx. 40 %

Viscosity (25 °C, V03.4/V01):
Component A: 700 – 1.000 mPas
Component B: 1.900 – 2.900 mPas

APPLICATION

Mixing ratio:
1 : 5 (by weight)
1 : 5 (by volume)

Material consumption:
100 – 150 g/m²

Processing time (at 50 % rel. hum. of air):
20 – 25 minutes (30 °C)
40 – 50 minutes (20 °C)
70 – 90 minutes (10 °C)

Tack free time (at 50 % rel. hum. of air):
min. 4 – 6 hours, max. 12 hours at 30 °C
min. 8 – 12 hours, max. 24 hours at 20 °C
min. 16 – 24 hours, max. 48 hours at 10 °C

Curing (complete mechanical stress at 50 % rel. hum. of air):
3 days (30 °C)
7 days (20 °C)
10 days (10 °C)

Application/Substrate:
The substrate has to be non-slip, clean, to be able to take loads and to be free of separating substances like fats, oils, etc. and at least dry.

Conductive layer is carried out on a prepared and primed substrate. Rough surfaces generated by blasting or milling of the substrate has to be levelled by the use of an additional levelling layer before applying the conductive layer.
Care regarding the earth groundings has to be taken into account.

The conductive layer may be applied directly to the primer within the recoating time. If this recoating time is exceeded then the area has to be prepared by grinding after curing for the next layer.

Application/Tools:
roller with short or medium-sized fur

Application/Mixing:
Pour the main component completely into the curing agent. Mix intensively with a slow rotating stirrer (recommendation: double stirrer with shafts that rotate in opposite directions). Pour into a different vessel and mix there intensively again to avoid bad spots. Before applying onto the substrate a homogeneous mass, free of streaks has to be achieved.

The ready mixed coating mass GI 125 may be diluted with water up to a maximum of 5 % to achieve better workability. Thereby the conductivity is not affected.

Application:
The product is poured onto the prepared area and uniformly spread criss-cross by use of a roller with short or medium-sized fur.

Application/General:
Material, air and substrate temperatures have to be measured and have to be between 10 °C and 30 °C during the whole application.

Furthermore care has to be taken into account that the substrate temperature is always 3 °C above the dew point temperature.
Relative humidity of air may not exceed 80 %.

The product should be applied at a constant or decreasing temperature in order to avoid blistering by expansion of air in the substrate.
Good ventilation after application and during curing has to be ensured.
During the complete curing phase the area has to be protected against direct contact with water.

CE-LABELLING:

Products which fall under specifications regulated by a harmonized standard or for which a European Technical Assessment has been issued have be labeled in accordance with Annex III of Regulation (EU) No 305/2011 (Construction Products Regulation) with the CE-mark.

DIN EN 13813:2002 „Screed material and floor screeds – screed materials – properties and requirements“ sets the rules for screed materials used for floor construction indoors. Coatings and Sealers are included in this regulation as well.

The EN 1504-2: 2004 „Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete“ specifies the requirements for hydrophobic impregnations, impregnations and coatings, which are used for the surface protection of concrete. Flooring systems that are exposed to significant mechanical stresses also have to fulfill the requirements of the EN 13813.

For more detailed information please refer to the corresponding declaration of performance.

SAFETY INFORMATION:

Only for professional users.

For safe handling of epoxy resins and their curing agents we do recommend attention to the following leaflets as a matter of principle:
Leaflet BG-Regel BGR 227, Handling of Epoxy resins. (Ed.: Berufsgenossenschaft der Chemischen Industrie).
Furthermore the relevant physical, safety-related, toxicological and ecological data have to be taken from the specific material safety data sheets.

Disposal:
Completely cured material may be disposed via domestic waste.
Hand residual emptied units over to Recycling.
Liquid material has to be disposed of as paint waste which contains solvents or other dangerous substances.

VOC-Directive 2004/42/EG:
Category IIA/j Type wb < 140 g/l VOC
(limit 2010)

Data base:
The determination of all the data and application information is based in laboratory tests. Measured values in practice may differ because of influences beyond our control.

Legal foundation:
The following specifications as well as the recommendations for handling and use of our products are based upon our knowledge and experience under normal conditions, at proper storing and application. Because of different materials, substrates and working conditions other than given normal values, a warranty of a working result or a liability – for whatever legal relationship - cannot be justified from these instructions or a verbal guidance respectively, unless intent or gross fault can be imputed to us. Here, the user has to prove that he had transferred in written form, in time and completely every knowledge that is necessary for an appropriate and promising estimation. The user is obliged to test the products on their suitability for the intended purpose. Incidentally our respective terms and conditions of business are valid. You get these on www.gremmler.de. Only the newest edition of this technical data sheet is valid.

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