



GREMMLER®

BAUCHEMIE

GI 137 Water vapour diffusion capable top coat

- Coloured water based epoxy resin dispersion

Product description

Application / Properties

GI 137 is a water based, filled and pigmented epoxy resin based dual-component reaction plastic. The product is used in inside areas as user friendly diffusible sealing and painting material on cement bound substrates such as renderings, cement screeds and concrete, on highly compressed rolled and mastic asphalt as well as on magnesite and anhydrite screeds. It is suitable for mechanically and chemically low stressed areas for example in workshops and industrial halls.

Use in outside areas is possible but should extensively be tested in advance.

Antiskid coatings according to the requirements of respective trade associations are designable with the addition of special fillers. Use in permanently wet areas has to be tested in advance.

GI 137 may be diluted with water and directly applied as primer on the substrate. Alternatively GI 116-003 may be used as primer. The product is designed for the direct use on mineral bound substrates with a residual moisture up to 5 % on cementous screeds (determined by CM method) and up to 1 mass % on anhydrite screeds respectively.

Within its liquid state GI 137 is free of organic solvents, odourless, non-flammable and not explosive.

Sealings made with GI 137 are semi-matt, easy to clean and feature very high adhesion power on different substrates.

In its completely cured state GI 137 is resistant to water, seawater and sewage water. It is also resistant to many lye solutions, diluted acids, salt solutions, mineral oils, lubricants, fuels and many solvents (discoloration is possible).

A certain amount of colour change and chalking must be expected under the influence of UV light because of the binding material that has been used. Epoxy resins tend to chalking. This has to be considered by choosing colour and intended use.

Color / Package item / Shelf life

Color:

RAL 7032; other colors on request

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. 1.60 g/cm³

Adhesive strength:

> Concrete fracture

Solids content:

approx. 75 %

Viscosity (25 °C, V03.4):

Component A: 550 – 850 mPas

Component B: 600 – 900 mPas

Mixture viscosity: approx.. 1700 mPas



APPLICATION:

Mixing ratio:

1 : 5 (by weight)
1 : 3.3 (by volume)

Material consumption:

200 – 300 g/m² per layer
400 – 600 g/m² in two layers

Processing time (at 50 % rel. hum. of air):

15 – 25 minutes (30 °C)
35 – 45 minutes (20 °C)
70 – 90 minutes (10 °C)
End of pot life is visible

Tack free time (at 50 % rel. hum. of air):

min. 6 – 8 hours, max. 12 hours at 30 °C
min. 12 – 16 hours, max. 24 hours at 20 °C
min. 24 – 36 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.

The surface of the substrate has to be tested and to be prepared according to the results obtained by blasting or grinding (with the exception of asphalt bound substrates). Depending on the kind of surface preparation and therefore the roughness of the substrate the material consumption may vary.

Application/Tools:

roller with short or medium-sized fur, scraper
grating
Clean tools with water and not with solvent

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.

GI 137 is ready formulated, but may be used diluted if required with water up to a maximum of 20 %. Intense dilution reduces covering power. By use as primer GI 137 is always applied diluted.

Application:

The product is uniformly spread criss-cross by use of a roller with short or medium-sized fur, on wall areas after using a scraper grating. Upon bigger areas, care regarding the processing time has to be taken into account to avoid / minimize edges.

A primer with GI 137 (diluted) or GI 116 is always required.

The sealing may be applied directly to the primer within the recoating time. If this recoating time is exceeded then the recently applied and still wet area has to be broadcasted with fire-dried quartz sand in advance (Antiskid coating) or otherwise this area has to be prepared by grinding after curing for the next layer.

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.

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.

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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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)