



GREMMLER®

BAUCHEMIE

GI 221 Self levelling coating

- Solvent free, tough self levelling coating

Product description

Application / Properties

GI 221 is a solvent free, filled and pigmented polyurethane-resin based dual-component reaction plastic for cement and reaction resin bound substrates. The product is used in inside areas within a layer thickness between 1.3 mm to 3.0 mm. The product is used upon areas with high mechanical stress. Classic areas of application are for example storage halls, production halls, repair halls, workshops, power plants and parking areas.

Generally smooth coatings are made by the use of GI 221. Antiskid coatings according to the requirements of respective trade associations are designable with the addition of special fillers. The product may also be applied in permanently wet areas.

Coatings made with GI 221 are tough, glossy, easy to clean, easy to decontaminate and feature high abrasion resistance.

A primer is always required. We do recommend the use of GI 110 or GI 115 dependent on substrate. On mastic asphalt we do recommend the use of GI 210 or 215.

In its completely cured state GI 221 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.

Color / Package item / Shelf life

Color:

RAL 7022, RAL 7035 other colors on request

Package item:

30 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. 1.70 g/cm³

Shore-hardness:

D > 70

Solids content:

100 %

Viscosity (25 °C, V03.3, V03.4):

Component A: 5.000 – 7.500 mPas

Component B: 80 – 120 mPas



APPLICATION

Mixing ratio:

5 : 1 (by weight)
3.4 : 1 (by volume)

Material consumption:

1.7 kg/m²/mm layer thickness
Minimal layer thickness: 1.3 mm
Recommendation: 2.2 kg/m²

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

12 – 17 minutes (30 °C)
25 – 35 minutes (20 °C)
40 – 60 minutes (10 °C)

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.

Coating is carried out on a prepared and primed substrate. Depending on the kind of surface preparation and therefore the roughness of the substrate the material consumption may vary.

The coating 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 or otherwise this area has to be prepared by grinding after curing for the next layer.

Application/Tools:

Trowel, scraper - preferably with triangular toothed blades

Application/Mixing:

Pour the curing agent completely into the main component. 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.

We do not recommend to fill the product with quartz sand.

Application:

The product is poured onto the prepared area and uniformly spread on the floor with a trowel or a scraper - preferably with triangular toothed blades. If necessary deaeration can be made by use of a spiked roller. In case of perturbations arising from the substrate the coating indeed has to be deaerated.

Upon bigger areas, care regarding the processing time has to be taken into account to avoid / minimize colour differences and edges.

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.

GREMMLER BAUCHEMIE GMBH
LISE-MEITNER-STRASSE 5
46569 HÜNXE

PHONE: +49 (0)281 9440340
FAX: +49 (0)281 9440344
info@gremmler.de
www.gremmler.de

SAFETY INFORMATION:

Only for professional users.

For safe handling of polyurethane resins and their curing agents we do recommend attention to the following leaflets as a matter of principle:

Leaflet M044, Manufacturing and use of polyurethanes / isocyanates. (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 Ib < 500 g/l VOC
(limit 2010)