



GI 613 Glossy top coat

- Water based, low emission, lightfast glossy top coat

PRODUCT DESCRIPTION

Application / Properties

GI 613 is a solvent free, water based, non-filled and non-pigmented polyurethane resin based, light resistant sealing material for cement and reaction resin bound substrates. The product is used in inside areas as glossy top coat within a layer thickness between 50 µm to 150 µm. The product is used upon areas with slight mechanical and chemical stress where the main focus is very good scratch resistance and light fastness. Classical areas of application are for example living spaces, lounges, schools, hospitals and other public buildings, showrooms and shops.

The product is designed for the direct use on as good as new mineral bound substrates with a residual moisture up to 4 % on cementous screeds (determined by CM method).

Sealings made with GI 613 are glossy, easy to clean, easy to decontaminate and feature high abrasion resistance.

GI 613 may be used in areas in which a degasing of indoor air quality derogating substances for example like benzyl alcohol shall be avoided in the long term. The product completely fulfills the requirements of the german AgBB committee for indoor use (public buildings, living spaces, recreation rooms and more). GI 613 has been tested in combination with our primer GI 118 and our levelling coating GI 624 as coating system by the LGA TÜV Rheinland.

In its completely cured state GI 613 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).

Dependent on substance, concentration and exposure time chemical stress may lead to discoloration on the surface which does not affect the functionality of the coating.

Polyurethanes with that kind of composition do only have a slight tendency towards discoloration and chalking under the influence of UV radiation. Because of the permeability of plastic materials against UV radiation, the visible colored system component needs to have this feature too.

Colour / Package item / Shelf life

Colour:

Transparent, glossy

Package item:

5 kg, 10 kg; other units on request

Shelf life:

12 months after production date

Storage in original sealed units

Dry, cool and free of frost

Recommended storage temperature: 5 – 30 °C

Remark: Frost may damage the product in an irreversible way. Storage at temperatures above 30 °C may increase the medium particle size and therefore lead to a higher risk of sedimentation and coagulation.

TECHNICAL DATA:

Density at 23 °C / 50 % rel. hum. of air:

approx. 1.07 g/cm³

Adhesive strength:

> Concrete fracture

Solids content:

approx. 37.5 %

Viscosity (25 °C, V03.4/V03.3/V03.4)

Component A: 40 – 70 mPas

Component B: 1.600 – 2.500 mPas

Mixed viscosity: approx. 250 mPas



APPLICATION

Mixing ratio:

5 : 1 (by weight)
5.4 : 1 (by volume)

Material consumption:

80 – 120 g /m² per layer

Potlife (at 50 % rel. hum. of air):

approx. 2 h (20 °C)

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

15 – 20 minutes (30 °C)
25 – 35 minutes (20 °C)
50 – 60 minutes (10 °C)

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

min. 2 – 3 hours, max. 12 hours at 30 °C
min. 4 – 5 hours, max. 24 hours at 20 °C
min. 9 – 13 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.

Sealing is made directly on an as good as new cement bound substrate, an intensively cleaned old coating or within the recoating time on a recently coated area.

On polymeric modified cement based substrates sample areas have to be applied in advance to test compatibility.

Application/Tools:

roller with short or medium fur, scraper grating

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, if necessary dilute with water 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 613 is ready formulated. However the mixed product may be diluted with water up to a maximum of 5%.

Application:

After mixing the resin and hardener component wait 15 minutes for ripe time and stir up again!

The product is spread criss-cross by use of a roller with short or medium-sized fur after using a scraper grating

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

The relative humidity of air has to be within the range from 40 % to 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 wb < 140 g/l VOC
(limit 2010)