GI 219 Top coat for higher layer thicknesses

- **Single-layer, solvent-free, glossy, light and weather resistant top coat for anti-skid coatings**

Product description

Application / Properties

GI 219 is a solvent free, unfilled and non-pigmented polyurethane-resin based dual-component reaction plastic. The product is used as high glossy, scratch-resistant, light and weather resistant top coat with brilliance and penetration as well as high transparency for decorative flooring systems like full flakes coatings, synthetic resin screeds and stone carpets with rough surface. Classical areas of application are for example balconies, terraces, pergolas and showrooms behind windows.

Sealings made with GI 219 are tough and feature high chemical resistance, abrasion and scratch resistance. This product is not approved for the sealing of flat and compact surfaces.

The colors of the decorative coating will be optically highlighted by the use of GI 219 and appear many times over intense and bold.
Due to its special composition the tendency towards foam formation is vanishingly small. Also the formation of small bubbles within higher layer thicknesses compared with standard polyurethane top coats is practically lacking. This product may be applied in a single layer only.

After complete curing GI 219 is physiologically harmless and may therefore be used as top coat for food processing areas (commercial kitchen, bakeries, beverage bottling areas etc.).

In its completely cured state GI 219 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 (change of color is possible).

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.

Color / Package item / Shelf life

Color:
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

TECHNICAL DATA:

Density at 23 °C / 50 % rel. hum. of air:
approx. 1.20 g/cm^3

Adhesive strength:
> Concrete fracture

Shore-hardness:
D > 75

Solids content:
100 %

Viscosity (25 °C, V03.1):
Component A: 300 – 450 mPas
Component B: 400 – 600 mPas
Mixture viscosity: approx. 400 mPas

APPLICATION

Mixing ratio:
2 : 3 (by weight)
1 : 1.7 (by volume)

Material consumption:
300 – 600 g/m² (rough substrates)

Processing time (at 50 % rel. hum. of air):
20 – 25 minutes (30 °C)
40 – 50 minutes (20 °C)
80 – 100 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. 18 – 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.

Sealing has to follow within the recoating time on a recently coated area, a stone carpet or a synthetic resin screed.

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

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.

GI 219 is ready formulated and may not be filled or diluted.

Application:
On stone carpets, synthetic resin screeds or otherwise rougher substrates the product is uniformly applied criss-cross by use of a roller with short or medium-sized fur.

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.
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.

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 lb < 500 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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