

GI 112

Decorative binder

- Tough-elastic
- Total Solid according to the test method of Deutsche Bauchemie



GREMMLER®
BAUCHEMIE

Product description:	GI 112 is a solvent free, unfilled and transparent curing dual-component reaction plastic based on epoxy resin.
Usage area:	<ul style="list-style-type: none">• Binder for decorative synthetic resin screeds / stone carpet floors for inside use.
Usage:	<ul style="list-style-type: none">• As primer: to be applied directly onto the substrate• As sealing: for decorative floor coating with structured surfaces like full flakes coatings etc.• As binder: making of industrial and decorative synthetic resin screeds / stone carpets. Recommendation: synthetic resin screeds and stone carpets should be refreshed with G 112 after a maximum of 24 months to preserved the optic.
Properties:	<ul style="list-style-type: none">• The decorative coverings can also be used on under floor-heated substrates (max. 35 °C flow temperature) due to the binder being tough-elastic• For an epoxy resin it has very good resistance to light and UV light. However, we recommend GI 212 for bright colours and for outdoor use.• Sealings are glossy and tough.
Substrate:	<ul style="list-style-type: none">• As primer: Residual moisture: < 4 % cement-based substrate (tested by CM) 0,5 mass % weight anhydride screed.• Alternative: priming with GI 110 or GI 115

Technical Data

Colour:	Transparent
Pack size:	30 kg; other units on request
Storage life:	From production date 12 months; store in original containers; dry, cool, frost free
Density at 23°C / 50 % air humidity: EN ISO 2811-1:2011	Approx. 1.09 g/cm ³
Adhesive pull strength: EN 1542	> Concrete fracture
Shore hardness: ISO 7619-1:2012	D > 70
Solid parts	Approx. 100 %
Viscosity (25 °C, V03.4): EN ISO 2884-1:2006	Component A: 550 – 850 mPas Component B: 100 – 200 mPas
Mixing ratio:	2 : 1 (by weight) 1.85 : 1 (by volume)
UV-resistance:	GI 112 has better UV resistance than standard epoxy resins. In the long term, based on the binder, a change in colour and chalking can be expected.
Chemical resistance:	When completely cured resistant against: Water, sea and wastewater, numerous brines, diluted acids, saline solutions, mineral oils, lubricants, fuels and many solvents (with some materials a change in colour is possible). We advise to carry out suitability tests in advance.

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Processing Data:

Material usage:	As sealing: 400 g/m ² – 600 g/m ² for rough substrates (e.g. full flakes coatings) 100 – 200 g/m ² for sealing of stone carpets 1:8 to 1:25 as screed dependent on the grading curve, application and the open porosity of the finished layer These values are dependent on how the product is processed and on the substrate. The values are therefore only for a rough estimate
Processing time (50 % air humidity):	20 – 30 minutes (30 °C) 40 – 50 minutes (20 °C) 70 – 90 minutes (10 °C)
Revision time (50 % air humidity):	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 time (complete mechanical stress at 50 % air humidity):	3 days (30 °C) 7 days (20 °C) 10 days (10 °C)
Processing temperature:	10 – 30 °C

Processing:

Preparation of the substrate:	<ul style="list-style-type: none">• Substrate must be dry, clean, rough, stable and free of separating substances like oil, fats etc.• Sealing with GI 112: Within the revision time on a recently applied coating area, a fresh stone carpet or synthetic resin screed. Stone carpets and synthetic resin screeds are sealed again after intensive cleaning took place.• Stone carpets has to be applied on prepared and primed surfaces. In any case, the primer should be sprinkled with fire-dried quartz sand in order to achieve a certain resistance and therefore an easier installation.
Tools:	<ul style="list-style-type: none">• Rubber slider, short or medium piled roller, smoothing trowel, laying irons, etc.
Mixing:	<ul style="list-style-type: none">• Pour the curing agent completely into the resin compound.• Mix intensively with slow turning mixer (we advise a double-stirrer with the stirring units turning the opposite direction to each other).• Fill into another vessel and mix again.• Before applying to the substrate make sure to have an even and smear-free mixture.
Application: Sealing + primer:	<ul style="list-style-type: none">• The product is poured onto the prepared area, spread with rubber slider and evenly applied with short or medium piled roller in a cross pattern.• The product is rolled onto open-porosity coating by using a scraper grid.
Stone carpet:	<ul style="list-style-type: none">• The finished GI 112 binder is homogeneously mixed with the aggregate in the compulsory mixer, is poured onto the prepared area, the appropriate layer thickness is adjusted by use of metal profiles and then the coating is manually or mechanically compressed.• The sealing must take place within the revision time.

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Processing conditions:	<ul style="list-style-type: none">• In case of bigger areas care must be taken to work on in time in order to minimize overlapping traces and colour differences.
	<ul style="list-style-type: none">• The material, air and ground temperature must be between 10 °C and 30 °C during the processing, installation and curing time.
	<ul style="list-style-type: none">• The substrate temperature must be at least 3 °C above the dew point.
	<ul style="list-style-type: none">• The air humidity should not be above 80 % at any time. The application should take place when temperature is at a constant or falling value to avoid blisters because of the extension of air inside the substrate. It is important to keep an eye on the ventilation during and after the application. The area must be protected from any direct water contact during the whole curing time.

Further information:

CE-label:	DIN EN 13813: 2002
Safe Handling:	The product is intended for professional use. DGUV Rule 113-012: Handling with Epoxy resins Please note the current safety data sheets.
VOC-Content:	VOC-directive 2004/42/EG: Category IIA/j type Ib < 500 g/l VOC
Disposal:	Disposal with the assistance of a disposal specialist under consideration of the current safety data sheets.
GISCODE:	RE 90

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.