



GI 166

Concrete adhesive fine

- KTW certified
- Pigmented
- Good adhesive strength and high durability
- Total Solid according to the test method of Deutsche Bauchemie

Product description:	GI 166 is a mineral filled reaction plastic based on epoxy resin
Usage area:	Concrete adhesive
Usage:	<ul style="list-style-type: none">• Fixing, glueing and force-fit adhesion for workpieces made of concrete and reinforced concrete. Mainly used for adhesion of exposed concrete and FB-plugs
Properties:	<ul style="list-style-type: none">• Thixotropic and ready mixed as filler• Good adhesion, high durability and little shrinkage• Expansion coefficient approximately the same as concrete• Applicable vertically, horizontally and overhead• Fulfils the requirements for the category "seals for pipes and repair systems for tanks" according to the coatings guideline for drinking water contact (cold water)• Not usable for reinforcement and repair purposes according to EN 1504-4• Designed for layer thickness between 1 mm and 15 mm
Substrate:	<ul style="list-style-type: none">• Mineral substrates• Concrete residual moisture: < 4 % (tested by CM)

Technical Data:

Colour:	Grey
Pack size:	3 kg tin
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. 2.0 g/cm ³
Adhesive pull strength: EN 1542	> concrete fracture
Shore hardness: ISO 7619-1:2012	D > 80
Compressive strength: EN 12190	Approx. 75 – 80 N/mm ²
Flexural strength: EN ISO 178	Approx. 30 N/mm ²
Elastic modulus: EN 13412	Approx. 10.000 – 12.000 N/mm ²
Solid parts:	Approx. 100 %
Viscosity (25 °C, V03.4): EN ISO 2884-1:2006	Component A: pasty Component B: pasty
Mixing ratio:	1 : 1 (By weight)

UV-resistance:	A slight change in colour and some chalking is 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.

Processing data:

Material usage:	Approx. 2.0 kg/m ² /mm layer thickness 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 (at 50 % air humidity):	20 – 30 minutes (30 °C) 40 – 60 minutes (20 °C) 90 – 120 minutes (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. • Must be grinded or blasted. Depending on the preparation work, the surface may be rough in some places which will influence the consumption. • The concrete parts to be bonded must be a minimum of 28 days old. • We advise to do some testing yourself depending on the intended use.
Tools:	<ul style="list-style-type: none"> • If necessary: trowel, scraper etc.
Mixing:	<ul style="list-style-type: none"> • Mix components separately • Add 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:	<ul style="list-style-type: none"> • Depending on the application, the product is to be applied evenly on the to be bonded parts while using a scraper or trowel. • Attention must be paid to an evenly spread and hollow free application. • Instantly after applying the adhesive, the pieces to be bonded must be pressed against each other and fixed if needed. • When bonding vertical and overhead, the parts must be fixed into place for a minimum of 12 hours depending the temperature and conditions.

Processing conditions:	<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.• The substrate temperature must be at least 3 °C above the dew point.• 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.
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Further information:

Safe handling:	The product is intended for professional use. DGUV Rule 113-012: Handling with Epoxy resins Please note the current safety data sheets.
Disposal:	Disposal with the assistance of a disposal specialist under consideration of the current safety data sheets.
GISCODE:	RE 30

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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