

GI 190

Grout

- High strengths
- High layer thickness in one grouting step
- Total Solid according to the test method of Deutsche Bauchemie



Product description:	GI 190 is a filled and pigmented dual-component reaction plastic based on epoxy resin.
Usage area:	<ul style="list-style-type: none">• Inside and outside areas: Casting of rail- and corrugated panels, of galvanised steel constructions, of precision bearings, fixing of high-rack storage system, of pumps, compressors, stabilisation of noise-cancelling walls supports and bearing plates between steel plates.
Usage:	<ul style="list-style-type: none">• Grout for minimum layer-thicknesses of 2 mm• For renovation, repair and filling jobs
Properties:	<ul style="list-style-type: none">• High layer thickness (max. 100 mm) in one grouting step depending on the volume to be poured (max. 500 l)• Low exothermics• High toughness and abrasion resistance• Good water impermeability, high compressive and shear strength• Excellent adhesion properties on concrete and de-rusted steel surfaces• Acts vibration-reducing and makes force-fit connections between different kind of substrates• Casting of too large volumes can lead to shrinking or cracks despite of low exothermics in the material due to a certain amount of heat generation.
Substrate:	<ul style="list-style-type: none">• Priming with GI 115 or GI 118 is only necessary on wet or critical substrates.

Technical Data

Colour:	Approx. RAL 7032; more colours on request
Pack size:	10 kg, 20 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. 1.77 g/cm ³
Adhesive pull strength: EN 1542	> Concrete fracture
Compressive strength: EN 196-1:2006	Approx. 90 N/mm ²
Flexural strength: EN 196-1:2006	Approx. 40 N/mm ²
Shore hardness: ISO 7619-1:2012	D > 80
Solid parts	Approx. 100 %
Viscosity (25 °C, V03.4): EN ISO 2884-1:2006	Componente A: pasty Componente B: < 50 mPas
Mixing ratio:	10 : 1 (by weight) 5.27 : 1 (By volume)
UV-resistance:	A slight change in colour and some chalking is expected.

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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:	2 kg/m ² /mm for re-profiling 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):	15 – 25 minutes (30 °C) 30 – 40 minutes (20 °C) 50 – 70 minutes (10 °C)
Revision time (at 50 % air humidity)	Min. 8 - 10 hours, max. 12 hours at 30 °C Min. 16 - 20 hours, max. 24 hours at 20 °C Min. 30 - 40 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.• The substrate must be checked, prepared properly and primed.
Tools:	<ul style="list-style-type: none">• If necessary, formwork equipment, 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:	<ul style="list-style-type: none">• The product must be poured with as little interruptions as possible onto, under or in between the prepared areas until the needed height is reached.• Formwork materials must be greased with separating substances (like oils, fats, paraffins, etc.).
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:

CE-label:	DIN EN 13813: 2002 DIN EN 1504-6:2006
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.