



GI 194 D

Paving joint mortar, slurry type

- For medium to heavy traffic load
- Fast curing
- Solvent-free

Product description:	GI 194 D is a solvent-free, ready formulated and pre-mixed dual component reaction plastic based on epoxy resin.
Usage area:	Jointing of old or new natural and concrete stone pavements e.g. pedestrian zones, roundabouts, driveways, marketplaces etc.
Properties:	<ul style="list-style-type: none">• For medium to heavy traffic load• Joints in natural and concrete stone pavements reach high strengths and are constantly resistant against mechanical stresses like car and truck traffic as well as from road sweepers and other cleaning machines.• Excellent water compatibility• Good water permeability, so rainfall can be led into the ground water via the joint (dependent on the substrate)• Blockage against growth from underneath• Not suitable for force-fit connections between the stones and cannot absorb subsidence from the substrate.• Due to the jointing, a binder film remains on the surface of the stone which intensifies its colour. This film disappears after 1-12 months depending on the thickness and mechanical load of the area. In case of doubt, we recommend applying a test area.
Substrate:	<ul style="list-style-type: none">• Minimum requirements for the joint: Depth: 30 mm and width: 8mm (please note the guideline ZTV-Wegebau)• For areas with higher traffic load, the stone should at least be covered inside a solid mortar bed for $\frac{3}{4}$ of its total height.

Technical Data:

Colour:	Sand, basalt, grey
Pack size:	25 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. 1.5 g/cm ³
Compressive strength: EN 196-1	Approx. 49 – 55 N/mm ²
Flexural strength: EN 196-1	Approx. 18 – 20 N/mm ²
Solid parts:	Approx. 100 %
Viscosity (25 °C, V03.4): EN ISO 2884-1:2006	Component A: earth-moist Component B: 400 – 600 mPas
Mixing ratio:	100: 3.5 (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.
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Processing data:

Slurry capability:	Max. 10 minutes (30 °C) Max. 15 minutes (20 °C) Max. 20 minutes (10 °C)
Processable:	12 – 16 minutes (30 °C) 16 – 20 minutes (20 °C) 24 – 36 minutes (10 °C)
Walkable:	12 – 16 hours (30 °C) 16 – 20 hours (20 °C) 24 – 36 hours (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"> • The joint depth must be checked for newly laid areas. • Existing joints are to be exposed by using water jets or compressed air blowing. • The entire area must thoroughly be cleaned. Contaminations can otherwise be fixed by GI 194 D. • The to be joint area must be good and permanently pre-wetted so that the binding agent cannot penetrate into the stone surface and become stuck. • Depending on the absorbency of the stones to be joint, pre-wetting must be repeated several times during the jointing depending on the stone structure, temperature and solar radiation.
Tools:	<ul style="list-style-type: none"> • Rubber slider, broom, water hose
Mixing:	<ul style="list-style-type: none"> • Pour the resin/sand mixture and then the hardener component completely into a larger processing vessel and mix intensively with a slowly rotating mixer (we advise a double stirrer with the stirring units turning the opposite direction to each other) for at least 2-3 minutes. • Add approximately 10 % water to adjust the processing consistency and mix again thoroughly for 3-5 minutes. • Prior to the usage, a creamy mixture must be achieved.
Application:	<ul style="list-style-type: none"> • The product is poured onto the well-prepared and wet area and then quickly spread across the area with a rubber slider. • After a temperature dependent waiting time, the mortar has an earth-moist consistency. At this point, the mortar residues remaining on the pavement surface are completely swept off with a medium-hard broom. Take care to ensure that no mortar residue is swept into open areas that still require jointing. • The binder film remaining on the stone surface can be easily removed with a soft water jet at the beginning of the sweeping process. Take care that the material does not get washed out.
After application:	<ul style="list-style-type: none"> • You can walk on the area after 24 hours, vehicle traffic after seven days after application.

- The freshly pointed area must be protected from hail/severe rain for at least 24 hours after application.
- When using plastic sheeting as rain protection, a minimum distance of 35 cm from the surface must be maintained to avoid condensation.
- A strength test of the area should be carried out before traffic usage.
- The area has not be cleaned within 7 days after filling.
- High humidity and rain as well as low temperatures can significantly effect the curing time.

Processing conditions:

- 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. As far as possible it should not rain during the first hours within the curing time (white colouring).
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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.

Directives, regulations:

ZTV Wegebau
 Instruction sheet for surface pavements with slabs and pavement
 Additional technical regulations in road construction (ZTVE-Stb).
 Additional technical regulations and guidelines for the execution of soil stabilisation and soil improvement in road construction (ZTVV-Stb).
 Guidelines for the standardisation of traffic surface pavements (FSTV).
 RstO: Construction methods with paving slabs for carriageways (FSGB 19896).

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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