



GREMMLER®

BAUCHEMIE

GI 294 UV Light stable, sweep applicable paving joint mortar

- **For areas with slight to medium traffic congestion**

Product description

Application / Properties

GI 294 UV is a solvent free, ready formulated and one component reaction plastic based upon a polyurethane resin. The product is used for jointing of old and new natural and concrete stone paving as well as tables and clinker surfaces in areas with slight traffic congestion. Examples of application amongst others are pedestrian zones, garden facilities, decorative forecourts, terraces, walkways and courtyards.

GI 294 UV is absolutely light stable and therefore especially suitable for the jointing of bright, strongly absorptive as well as ferrous natural stones (for example bright granites and gneiss). Due to its consistency jointing of vertical areas is possible as well as with GI 294 UV.

GI 294 UV is an easy to apply mortar system which guarantees good water permeability and barrier properties against green plant covering from underneath. Amounts of rainfall are not led away via the sewer network – which is the case when a watertight joint is used – but directly led to the groundwater through the joint (depending on the fundament). Usually the high water penetration values completely remain under normal stress even after years of usage.

Joints within natural stone paving made with GI 294 UV feature high strength and permanently resist exterior influences of mechanical kind for example by the use of road sweepers and cleaning machines.

The paving joint mortar is not intended to execute the purpose of a force-fit connection between the stones and is not able to pick up subsidence from the fundament. On an adequate fundament according to the expected traffic congestion may not be waived.

In its completely cured state GI 294 UV 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 (discoloration is possible).

Polyurethanes with that kind of composition do only have a slight tendency towards discoloration and chalking under the influence of UV radiation.

The binder coating which remains on the stone surface after the jointing process intensifies the stone color and protects the stone from dirt and moss. This coating vanishes according to its thickness and the degree of mechanical stress upon this area within 1 – 12 months.

We do recommend that you create in doubt a test area.

Colours / Package item / Shelf life

Colours:

Sand, basalt, grey, black

Package item:

25 kg

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:

1.40 g/cm³

Compressive strength:* (after 3 days at 23 °C):

38 – 40 N/mm²

Flexural strength* (after 3 days at 23 °C):

13 – 14 N/mm²

Solids content:

100 %

Viscosity (25 °C, V03.1):

Binding material: 600 – 800 mPas

* Values without water load during curing time and compressed testing specimen



APPLICATION

Processing time (at 50 % rel. hum. of air)*:

20 – 30 minutes (30 °C)

30 – 50 minutes (20 °C)

50 – 70 minutes (10 °C)

Accessible (at 50 % rel. Hum. of air)*:

12 – 16 hours (30 °C)

16 – 20 hours (20 °C)

24 – 36 hours (10 °C)

Curing (complete mechanical stress):

3 days (30 °C)

7 days (20 °C)

10 days (10 °C)

*Only approximated values are stated due to the fact that caused by a multitude of influences no accurate information is possible.

Application/Substrate:

Paving joints must at least have a joint depth of 30 mm and a joint width of 8 mm, in which width and depth should be within an appropriate ratio.

Besides that please pay attention to the standards of ZTV-Wegebau!

Upon areas with higher traffic congestion the stone should at least be set to $\frac{3}{4}$ of its height into a solid mortar bed.

The joint width on recently applied areas has to be checked. Existing joints have to be exposed either by water jetting or blowing out with air under high pressure.

The complete area has to be cleaned thoroughly. Otherwise dirt may be fixed when using GI 294 UV.

Application/Tools:

Rubber sweeper, broom

Application/Mixing:

Put the sand and subsequently the binding material completely into a bigger processing vessel and mix intensively with a slow moving stirrer (recommendation: double forced-action mixer with opposed rotating stirring shafts).

The mortar is ready for application when the whole sand is completely wetted with binding material and a homogeneous earth-moist mixture has been generated.

Application:

The product is poured onto the perfectly prepared area and rapidly spread with a rubber sweeper, worked into the joint. Immediately after the jointing the residual mortar pieces on top of the paving has to be completely removed with a medium hard broom. This always has to happen transverse to the joints to avoid sweeping of recently filled joints. Within this process care has to be taken into account that no residual mortar is swept into open and still to be jointed areas.

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.

The relative humidity of air has to be within the range from 40 % to 80 %.

As far as possible it should not rain during the first hours within the curing time (foam, blisters). The recently applied area may not be covered.



REGULATIONS, GUIDELINES ETC.:

- ZTV Wegebau
- Merkblatt für Flächenbefestigungen mit Pflaster- und Plattenbelägen.
- Zusätzliche Technische Vertragsbedingungen für den Bau von Wegen und Plätzen außerhalb von Flächen des Straßenverkehrs (ZTV Wegebau)
- Zusätzliche Technische Vorschriften und Richtlinien für Erdarbeiten im Straßenbau (ZTVE-StB).
- Zusätzliche Technische Vorschriften und Richtlinien für die Ausführung von Bodenverfestigungen und Bodenverbesserungen im Straßenbau (ZTVV-StB).
- Richtlinien für die Standardisierung von Verkehrsflächenbefestigungen (FSTV).
- RstO: Bauweisen mit Pflasterdecke für Fahrbahnen (FGSB 19896).

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.

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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