# **GI 294**

### Sweep in jointing mortar

- For small to medium traffic load
- Rapid curing
- Lightfast
- Solvent-free



Product description:	GI 294 UV is a solvent-free, ready formulated dual component jointing mortar based on a polyurethane resin and special filler
Usage area:	<ul> <li>Grouting of old and new natural and concrete stones pavements as well as slab and clinker coverings such as terraces, garage entrances, garden paths etc.</li> </ul>
Properties:	<ul> <li>For small to medium traffic load</li> <li>Usable for bright and ferrous natural stones thanks to its light-fast property</li> <li>Joints in natural stone paving achieve high strengths and permanently withstand mechanical loads such as sweeping and cleaning machines or from high pressure cleaners</li> <li>Grouting of vertical areas possible</li> <li>Excellent water compatibility</li> <li>Good water permeability, so rainfall can be led into the ground water via the joint (dependent on the substrate)</li> <li>Blockage against growth from underneath</li> <li>Not suitable for force-fit connections between the stones and cannot absorb subsidence from the substrate.</li> <li>During grouting, a film of binder remains on the stone surface, which intensifies the stone colour. This film disappears very slowly due to its UV stability. Depending on the visibility and mechanical load, it can last several years. In case of doubt, we recommend the creation of a sample area.</li> <li>GI 294 contains natural raw materials, therefore variations in colour cannot be excluded.</li> </ul>
Substrate:	<ul> <li>Minimum requirements for the joint:         Depth: 30 mm and width: 5mm     </li> <li>For areas with higher traffic load, the stone should at least be covered inside a solid mortar bed for ¾ of it`s total height.</li> </ul>

#### **Technical Data**

Colour:	Sand, basalt, grey
Pack size:	10 kg, 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:	Approx. 1.4 g/cm <sup>3</sup>
EN ISO 2811-1:2011	
Compressive strength:	Approx. 20 N/mm <sup>2</sup>
EN 196-1:2006	
Flexural strength:	Approx. 7.5 N/mm <sup>2</sup>
EN 196-1:2006	
Solid parts	Approx. 100 %
Viscosity (25 °C, V03.4):	Binder: 830 – 1240 mPas
EN ISO 2884-1:2006	
Mixing ratio:	96 : 3.5 (by weight)
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.

#### **Processing Data:**

Processing time (at 50 % air humidity):	20 – 30 minutes (30 °C)
	30 – 50 minutes (20 °C)
	50 – 70 minutes (10 °C))
Accessible (at 50 % air humidity):	12 – 16 minutes (30 °C)
	16 – 20 minutes (20 °C)
	24 – 36 minutes (10 °C)
Curing time (complete mechanical stress at	3 days (30 °C)
50 % air humidity):	7 days (20 °C)
	10 days (10 °C)
Processing temperature:	10 – 30 °C

#### **Processing:**

Preparation of the substrate
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- For recently applied area, the joint depth has to be checked.
- 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 294.
- 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.
- For coverings with chamfer, the joint should only be filled to the lower edge of the chamfer.
- In order to prevent separation layers and to ensure the optimum adhesion of the jointing mortar, the paving should be thoroughly cleaned on all four sides before use.

#### Tools:

• Rubber slider, brush, mixing tools

#### Mixing:

- The sand and the binder are to be poured into a large processing vessel (without the addition of water) and mixed intensively with a slowly rotating stirrer (we recommend to use a double stirrer with counterrotating stirring shafts) for at least 2-3 minutes.
- The mortar can be processed when the sand is completely covered in binder and a homogeneous, earth-moist, lump-free mass is generated.

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Application:	<ul> <li>The product is poured onto the well-prepared and wet area and quickly spread with a rubber slider and worked onto the joint.</li> </ul>
	<ul> <li>The mortar residues remaining on the pavement surface must be completely swept off immediately after grouting with hard or medium hard broom. This is always done crosswise to the joint so that filled joints are not swept out again.</li> </ul>
Processing conditions:	<ul> <li>The material, air and ground temperature must be between 10 °C and 30 °C during the processing, installation and curing time.</li> </ul>
	• The substrate temperature must be at least 3 °C above the dew point.
	<ul> <li>The air humidity should be between 40 % and 80 % at any time.</li> </ul>
	• The freshly laid area should not be covered. If possible, a few hours after application the freshly laid surface is to be protected from rain.

#### **Further information:**

Safe Handling:	The product is intended for professional use.
	Leaflet M044, production and processing of Polyurethanes and isocyanate.
	Please note the current safety data sheets.
Directives, regulations:	It is mandatory that the paving has a needs-based substructure.
	For this purpose, the current national standards and guidelines, such as
	ZTVWegebau, must be taken into account.
Disposal:	Disposal with the assistance of a disposal specialist under consideration of the
	current safety data sheets.
GISCODE:	PU 10

#### 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.