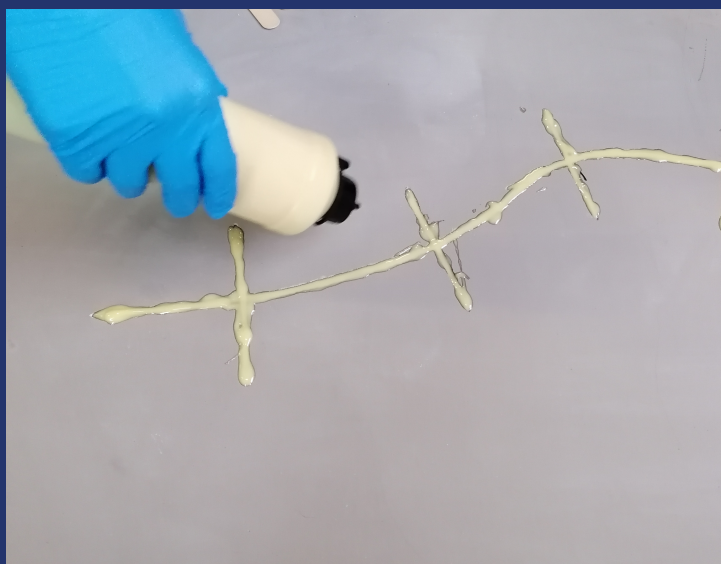
VELOSIT® GH 311

Fast Potting Resin



Application fields

VELOSIT GH 311 is a solvent-free, non-filled and non-pigmented 2-component reaction resin based on silicate resin.

Typical application fields include waterproofing of concrete:

- Force-fit sealing of joints and cracks in screeds
- Bonding of e.g. repair angles and demarcation rails
- Areas where short-term reworkability of the surface is required.

Properties

VELOSIT GH 311 meets the requirements of emission class EC 1 PLUS according to GEV-EMICODE classification criteria.

- Silicate based
- Silicone-free
- Fast setting
- Can be used on screeds with underfloor heating (max. flow temperature 35 °C)
- VOC Directive 2004/42/EC: Category IIA/j Type lb < 500 g/l VOC

Application

1.) Substrate preparation

Cementitious substrates with a residual moisture: < 4 % (measured according to CM) and anhydrite screeds: < 0.5 % are suitable.

The substrate must be dry, non-slip, clean, load-bearing and free from separating substances such as grease, oil, etc.

For preparation, the cracks must be cut open lengthwise with an angle grinder to approx. 2/3 of the screed thickness. Make cross-sections approx. 10 cm long every 30 cm up to approx. 2/3 screed thickness. The cracks and cross-sections must then be thoroughly vacuumed out. Wave connectors are then inserted into the cross sections.

2.) Processing

The material, air and floor temperatures must be between 10 °C and 30 °C during the entire application and curing time.

The substrate temperature must be 3 °C above the dew point temperature.

The relative humidity must not exceed 80 %. Application should be carried out at constant or falling temperature to avoid bubble formation due to expansion of air in the substrate. Ensure good ventilation after application and during curing. The surface must be protected from direct contact with water during the entire curing phase.

Mixing

VELOSIT GH 311 is supplied in 2 bottles A and B component in the correct ratio.
If possible, the material should be processed between + 15 °C and + 28 °C.
Material that is too warm reacts very quickly, while material that is too cold has an increased viscosity, which reduces its capability to penetrate into substrate.

Pour the hardener component (Comp. A) completely into the bottle of the resin component (Comp. B) and close it. Then shake intensively for approx. 15 seconds. Before applying VELOSIT GH 311, the mixed material must have a uniform, streak-free consistency. Cut off the tip of the bottle nozzle to match the crack width.

Application

a) Sealing joints and cracks

Directly after mixing, apply the material directly into the joints. After approx. 6 - 8 minutes (20 °C) the material starts to thicken. In paste form it is ideal for wider joints. Pour in VELOSIT GH 311 until saturation and refill if necessary.

Prevent the material from running into any insulation that may be present.

After grouting, smooth the surface and sprinkle with fire-dried quartz sand until completely saturated. After hardening, vacuum off the excess quartz sand.

b) Bonding of profiles and moldings

VELOSIT GH 311 is applied to the substrate with a suitable toothed strip and the parts to be bonded are immediately inserted or joined together and pressed on well.

The bonded materials must be fixed during curing.

To ensure the adhesion of subsequent layers, a fully broadcast to rejection with fire-dried quartz sand is mandatory.

3.) Curing

VELOSIT GH 311 requires no curing and can be overcoated within 2 - 3 h.

Estimating

Depending on crack width and depth
1 mixture results in approx. 600 ml.

Quality features

	Comp. A	Comp. B
Color:	transparent	brown
Density at 23 °C / 50 % relative humidity: EN ISO 2811-2:2011	approx. 1.45 g/cm³ (Comp. A) approx. 1.15 g/cm³ (Comp. B)	
Mixing ratio:	1 : 1 (by volume)	
Consistency (23°C):	Flowable for up to 12 minutes	
Walkable:	after approx. 1 hour	
Revisable:	after approx. 2 – 3 h	
Chemical resistance:	Fully cured resistant to: Water, seawater and sewage, numerous alkalis, dilute acids, salt solutions, mineral oils, lubricants and fuels, many solvents (color changes possible). We recommend carrying out your own tests in advance.	

Packaging

VELOSIT GH 311 is supplied in 600 ml units.
Carton with 5 bottles each á 300 ml component A and component B, incl. 2 bags á 20 corrugated connectors.

Storage

VELOSIT GH 311 can be stored in the unopened original container for 12 months (after date of production) at 15 - 25 °C in a dry and protected from direct sunlight.

Safety

Please observe the actual valid material safety data sheet and follow the described safety measures for handling of the product.

Recommendations

VELOSIT NG is only available for professional applicators.

VELOSIT GH 311 may yellow under UV exposure. The physical and chemical properties are not affected.

All described product features are determined under controlled laboratory conditions according to the relevant international standards. Values determined under job site conditions may deviate from the stated values.

Please always use the latest version of this data sheet available from our website www.velosit.de.

Manufacturer

VELOSIT GmbH & Co. KG
Industriepark 5 – 7
32805 Horn-Bad Meinberg
Germany
www.velosit.de