GI 233

Top Coat

- Scratch resistant
- Silk matt
- Pigmented
- Solvent-based



Product description:	GI 233 is solvent-based, coloured, high covering and silk matt hardening sealing and coating material based on acryl polyurethane resin for cement, reaction resin- and asphalt-bound substrates.
Usage area:	 Inside and outside area: road markings, cycle paths, production and industrial halls, workshops, warehouses food plants and swimming pools.
Usage:	 Sealing material for industrial and commercial use Smooth coating, though anti-slip surfaces according to the requirements of respective trade associations can be created by adding different special filler.
Properties:	 Medium mechanically and chemically resistant High abrasion and scratch resistance Light-fast and weather resistant Tough-elastic High opacity Usable in permanently wet areas With a suitable structure, the system has a slight water vapour diffusion Capability Resistant to chlorination to a legally permissible concentration level of swimming pool water Cleaning with electrolysis is not recommended.
Substrate:	 Priming mandatory: Dependent on substrate GI 110, GI 115 or GI 118, for mastic asphalt substrates GI 210 or GI 215 can be used

Technical Data

Colour:	Approx. RAL 7032; more colours on request
Pack size:	30 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. 1.2 g/cm ³
Adhesive pull strength: EN 1542	> Concrete fracture
Solid parts	Approx. 70 %
Viscosity (25 °C, V03.4):	Componente A: 1240 – 1860 mPas
EN ISO 2884-1:2006	Componente B: 45 - 65 mPas
Mixing ratio:	5 : 1 (by weight) 4.4 : 1 (by volume)
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:





Material usage:	150 - 250 g/m² (smooth substrates) per layer
	Minimum 500 g/m ² (on scattered substrates)
	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):	20 – 25 minutes (30 °C)
	35 – 45 minutes (20 °C)

S5 – 70 minutes (10 °C)

Revision time (50 % air humidity):

Min. 6 – 8 hours, max. 12 hours at 30 °C

Min. 8 – 12 hours, max. 24 hours at 20 °C

Min. 16 – 24 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:	 Substrate must be dry, clean, rough, stable and free of separating substances like oil, fats etc. Sealing takes place onto a prepared and primer substrate. Within the revision time, the coating can be applied directly onto the prepared and primed substrate. If the revision time is exceeded, the surface must be broadcasted with fire-dried Quartz-sand or, otherwise this area must be prepared by grinding after curing for the next layer.
Tools:	Rubber slider, short or medium piled roller, paint grid
Mixing:	 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. The GI 233 is finished and ready to go therefore the product shall not be filled or diluted.
Application:	
Smooth substrate:	 Apply with rubber slider and evenly spread with short or medium piled roller in a cross pattern. In case of bigger areas care must be taken to work on in time in order to minimize overlapping traces and colour differences.
Rough substrate:	 The product is to be applied with the help of a paint-grid and a shortor medium piled roller. In case of bigger areas care must be taken to work on in time in order to minimize overlapping traces and colour differences.

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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. 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.

Further information:	
CE-label:	DIN EN 13813: 2002
	DIN EN 1504-2: 2004
Safe Handling:	The product is intended for professional use.
	Data sheet M044, production and processing of Polyurethanes and isocyanate.
	Please note the current safety data sheets.
VOC-contens:	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:	PU 50
General:	• Colours with poor coverage (e.g. white, light gray, light yellow, light orange,
	etc.) may require a higher layer thickness or a multi-layer structure.
	 Depending on the type and strength of the point load, surface
	disturbances may occur, but these do not affect usability and are not a fault
	or deficit within the product.
	 Only work with same batch numbers to avoid colour differences. If this is
	not possible, available batches must be mixed to minimize this effect.
	 In case of bigger areas care must be taken to work on in time in order to
	minimize overlapping traces and colour differences.
	 Should heating be necessary for professional installation, do not use heat
	sources based on fossil fuels because they produce water vapour and
	carbon dioxide which disturbes the surface of the coating.
	• Pay attention to structural and on-site conditions such as joints, cracks, etc.

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.