

# GI 127

## ESD coating

- Durable
- Viscoplastic
- Pigmented
- Total Solid according to the test method of Deutsche Bauchemie



**GREMMLER®**  
**BAUCHEMIE**

<b>Product description:</b>	GI 127 is a coloured and pre-filled coating material based on a dualcomponent epoxy resin.
<b>Usage area:</b>	<ul style="list-style-type: none"><li>• Inside areas: e.g. clean rooms in automobile production and respective suppliers, in the electronic industry, in hospitals and in explosion-proof storage rooms.</li></ul>
<b>Usage:</b>	<ul style="list-style-type: none"><li>• Smooth coating, which are subject to special requirements for the protection of ESD-sensitive components in combination with our conductive layer GI 125.</li></ul>
<b>Properties:</b>	<ul style="list-style-type: none"><li>• High mechanically and chemical resistant</li><li>• High abrasion resistance</li><li>• Glossy</li><li>• Easy to clean</li><li>• In combination with our conductive layer GI 125 the requirements for EN 61340-5-1:2007 are permanently fulfilled (tested by the KIWA Polymerinstitut GmbH, test report: P 12239)</li></ul>
<b>Substrate:</b>	<ul style="list-style-type: none"><li>• Must be primed and coated with the conductive layer GI 125.</li></ul>

## Technical Data

<b>Colour:</b>	Approx. RAL 7032; more colours on request
<b>Pack size:</b>	30 kg; other units on request
<b>Storage life:</b>	From production date 12 months; store in original containers; dry, cool, frost free
<b>Density at 23°C / 50 % air humidity: EN ISO 2811-1:2011</b>	Approx. 1.47 g/cm <sup>3</sup>
<b>Adhesive pull strength: EN 1542</b>	> Concrete fracture
<b>Resistance footwear / floor (EN 61340-4-1:2004, measuring device: Metriso 3000)</b>	$7,5 * 10^5 \leq R_g \leq 3,5 * 10^7 \Omega$
<b>Walking test (DIN EN 61340-4-5:2004 measuring device: voltmeter):</b>	< 100 V
<b>Leakage resistance (DIN IEC 61340-4-1:2004) measuring device: Metriso 3000):</b>	$R_{E \text{ SYSTEM}} < 10^9 \Omega$
<b>Solid parts</b>	Approx. 100 %
<b>Viscosity (25 °C, V03.4): EN ISO 2884-1:2006</b>	Componente A: 5000 – 7500 mPas Componente B: 130 – 190 mPas
<b>Mixing ratio:</b>	3 : 1 (by weight) 1.96 : 1 (by volume)
<b>UV-resistance:</b>	A slight change in colour and some chalking is expected.

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<b>Chemical resistance:</b>	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:

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<b>Material usage:</b>	1.8 – 2.2 kg/m <sup>2</sup> These values are dependent on how the product is processed and on the substrate. The values are therefore only for a rough estimate.
<b>Processing time (50 % air humidity):</b>	15 – 20 minutes (30 °C) 30 – 40 minutes (20 °C) 50 – 70 minutes (10 °C)
<b>Revision time (50 % air humidity):</b>	Min. 8 – 12 hours, max. 12 hours at 30 °C Min. 16 – 20 hours, max. 24 hours at 20 °C Min. 24 – 36 hours, max. 48 hours at 10 °C
<b>Curing time (complete mechanical stress at 50 % air humidity):</b>	3 days (30 °C) 7 days (20 °C) 10 days (10 °C)
<b>Processing temperature:</b>	10 – 30 °C

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### Processing:

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<b>Preparation of the substrate:</b>	<ul style="list-style-type: none"><li>• Substrate must be dry, clean, rough, stable and free of separating substances like oil, fats etc.</li><li>• The conductive coat must be applied onto a prepared, primed and with the conductive layer GI 125 coated substrate.</li><li>• Pay attention to the earthing connections.</li><li>• The coating must be applied onto the conductive layer directly within the revision time.</li></ul>
<b>Tools:</b>	<ul style="list-style-type: none"><li>• Triangular toothed squeegee, spiked roller</li></ul>
<b>Mixing:</b>	<ul style="list-style-type: none"><li>• Pour the curing agent completely into the resin compound.</li><li>• Mix intensively with slow turning mixer (we advise a double-stirrer with the stirring units turning the opposite direction to each other).</li><li>• Fill into another vessel and mix again.</li><li>• Before applying to the substrate make sure to have an even and smear-free mixture.</li><li>• GI 127 is ready formulated. Filling materials are not to be added under any circumstance.</li></ul>
<b>Application:</b>	<ul style="list-style-type: none"><li>• The product is spread evenly across the whole area using a triangular toothed squeegee.</li><li>• If necessary, a spiked roller can be used for deaerating the coating. At defects due to the substrate it must be deaerated.</li><li>• In case of bigger areas care must be taken to work on in time in order to minimize overlapping traces and colour differences.</li></ul>

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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.
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**Further information:**

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<b>CE-label:</b>	DIN EN 13813: 2002 DIN EN 1504-2: 2004
<b>Safe Handling:</b>	The product is intended for professional use. DGUV Rule 113-012: Handling with Epoxy resins Please note the current safety data sheets.
<b>VOC-content:</b>	VOC-directive 2004/42/EG: Category IIA/j type Ib < 500 g/l VOC
<b>Disposal:</b>	Disposal with the assistance of a disposal specialist under consideration of the current safety data sheets.
<b>GISCODE:</b>	RE 90
<b>General:</b>	<ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li><li>• Only work with same batch numbers to avoid colour differences. If this is not possible, available batches must be mixed to minimize this effect.</li><li>• In case of bigger areas care must be taken to work on in time in order to minimize overlapping traces and colour differences.</li><li>• 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 disturbs the surface of the coating.</li><li>• Pay attention to structural and on-site conditions such as joints, cracks, etc.</li></ul>

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**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](http://www.gremmler.de). Only the newest edition of this technical data sheet is valid.