

**Expansive, self-distributing mortar, composed of a high-quality cement, natural quartz aggregates and suitable additives, of the maximum thickness of 50 mm**

Product description	Sicon Grout G10/50 mortar is designed to be used in concrete, reinforced concrete and pre-stressed structures, in communications engineering, hydraulic engineering and industrial engineering.		
Scope of application	<ul style="list-style-type: none"><li>• To fill cavities in concrete structures,</li><li>• For executing grouts under bridge bearings,</li><li>• For executing grouts under machines and devices,,</li><li>• For anchoring steel elements in concrete,</li><li>• For filling the gaps between the joined concrete prefabricates</li><li>• For filling track elements.</li></ul>		
Properties	<ul style="list-style-type: none"><li>• Highly liquid,</li><li>• Very good properties of inflowing and filling cavities in concrete,</li><li>• Expansive,</li><li>• Self-leveling,</li><li>• High waterproof</li><li>• Mechanical load already after approx. 24h,</li><li>• Resistant to frost, road salt, oil and derivatives,</li><li>• Chromate content in accordance with Directive 2003/53/EC,</li><li>• Resistant to chlorides,</li><li>• Fire class A1 – non-flammable, in accordance with PN-EN 13501-1,</li><li>• Low w/c ratio (water-cement),</li><li>• Suitable for both internal and external use.</li></ul>		
Height of cement plaster	Sicon Grout G10/50, grain size up to 2 mm; cement plaster thickness form 10 to 50 mm.		
Substrate preparation	Criteria for assessing the quality of the substrate of cement concrete, on which the application of Sicon Grout G10/50 mortar is allowed, are as follows: <ul style="list-style-type: none"><li>• Resistant substrate – the substrate strength tested using “pull-off” method equals to at least 1.5 MPa,</li><li>• Clean substrate – the concrete surface is free of loose faction, dust, oil stains, grease and other contaminants,</li><li>• Roughened surface – capillary pores of concrete must remain open, cement slurry and post shuttering finishing coat must be removed,</li><li>• Matt and damp substrate – the substrate should be matt and damp; the concrete surface should be uniformly dark and matt, devoid of bright and dark spots.</li></ul>		
Mortar preparation	Sicon Grout G10/50 mortar is supplied as a ready-to-use; it only requires mixing with water.		
Water demand	Up to 14% of water, i.e., approx. 3.5 liters of water per 25 kg bag.		
Technical data			
Bending and compression strength according to PN-EN 13892-2:2004		Compression strength [MPa]	Bending strength [MPa]
	1 day	≥ 40	≥ 5.5
	7 days	≥ 65	≥ 7.0
	28 days	≥ 80	≥ 9.5
Distribution	Min. f2 ≥ 65-74 cm after 5 minutes.		
Distribution class:	Min. a2 ≥ 60-69 cm after 5 minutes.		
Expansion ratio	>0.1% after 24 hours.		
Stirring	Mixing should be carried out using low-speed mixer or in a concrete mixer with forced mixing. Manual mixing is not permissible. Pour into a container about ¾ of the required maximum amount of water, pour Sicon Grout G10/50 mortar and stir for about 2 minutes. Then add the remaining water and mix again until homogeneous and required consistency. Total mixing time: 4 to 6 minutes.		
Application	Sicon Grout G10/50 when mixed with water can be poured directly onto the prepared surface or pumped, using screw pumps, e.g., Putzmeister S 5. In order to avoid the formation of air bubbles add Sicon Grout G10/50 from one side (along the long side) and continue the process without interrupting.		
Instructions	<ul style="list-style-type: none"><li>• Suitability for use of the mixed Sicon Grout G10/50 mortar is approximately 60 minutes at ambient temperature of +20°C,</li><li>• Places protruding beyond the filled element should not be wider than 5 cm (in other cases use Sicon CONTACT MC 100 under the spout),</li><li>• A suitable selection of the shuttering material is essential, in order to avoid a situation where the shuttering distracts mortar from the rest of mortar,</li><li>• The shuttering should be tight enough so that the works could be carried out without</li></ul>		

	<p>interruptions,</p> <ul style="list-style-type: none"> <li>• The shuttering should be higher than the bottom of the filled element,</li> <li>• The works of Sicon Grout G10/50 mortar application should be carried out at ambient temperature from +5°C to +30°C.</li> </ul>
<b>Curing</b>	Fresh mortar/concrete should be protected from premature drying. It is recommended a water sprinkling, covering with a damp fabric, or use of a preparation for surface protection.
<b>Consumption</b>	Approximate consumption of dry Sicon Grout G10/50 mortar/concrete is from 2000 kg to 2100 kg per 1m <sup>3</sup> of the fresh mortar/concrete. Approx. 13 l of fresh mortar/concrete is obtained from 25 kg bag of Sicon Grout G10/50.
<b>Storage</b>	Store in a cool and dry environment. Avoid direct sunlight. It is recommended to use within 9 months from the date of production.
<b>Supply</b>	25 kg bags, reinforced with polyethylene foil; single pallet: 42 x 25 kg = 1050 kg per euro pallet.
<b>Comments and recommendations</b>	
<b>Health and safety conditions</b>	<p>The main component of the preparation is cement, therefore use personal protective equipment, the same as when working with cement, i.e., gloves and goggles, when handled. Detailed guidance on safety, health and hazardous properties of the material are included in the Material Safety Data Sheet - supplied by the manufacturer upon request.</p> <p>Disposal of empty packaging lies with the end user and should be carried out in accordance with applicable regulations.</p>
<b>Legal notices</b>	<p>These instructions have been drawn up according to the current state of the art and experience in the application of the product, they refer to the products stored in accordance with the specified instructions. The product documentation provides for general information applicable under certain conditions. It is recommended that before using the product on a large scale, the purchaser tests it under specific construction environment conditions. The supplier has no control over the use, methods of application and execution conditions occurring at the construction site, and therefore no responsibility of the supplier for the final effect of the application may arise from these instructions. Recommendations of Sicon partners that differ from the information included in the Safety Data Sheet shall apply only in the case of their written confirmation.</p> <p>Date of issue: 01/2016</p> <p>All previously issued Sicon Grout 10/50 safety data sheets shall expire on the date of issue of this sheet.</p>