

**Product Data Sheet**  
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SikaGrout® 212-11/214-11

# SikaGrout® 212-11/214-11

## Non-Shrink, Pumpable, Cementitious Grout

<b>Description</b>	SikaGrout 212-11 and SikaGrout 214-11 are non-shrink, self-levelling, pre-mixed cementitious grouting mortars with extending working time to suit local ambient temperature.
<b>Uses</b>	<p>SikaGrout 212-11 and SikaGrout 214-11 are suitable for the following grouting works:</p> <ul style="list-style-type: none"> <li>■ Machine foundations</li> <li>■ Rails beds</li> <li>■ Columns in precast construction</li> <li>■ Anchor bolts</li> <li>■ Bridge bearings</li> <li>■ Cavities</li> <li>■ Gaps</li> <li>■ Recesses</li> <li>■ High strength repair</li> </ul>
<b>Advantages</b>	<p>SikaGrout 212-11 and SikaGrout 214-11 are economical and easy to use. Other beneficial properties are:</p> <ul style="list-style-type: none"> <li>■ Excellent flowability</li> <li>■ Good dimensional stability</li> <li>■ High strength, adjustable consistency</li> <li>■ No bleeding</li> <li>■ Non toxic, non corrosive</li> <li>■ Ready to use, requires only the addition of water</li> <li>■ Impact and vibration resistant</li> <li>■ Can be placed with suitable grout pump</li> </ul>
<b>Certificates</b>	Local test report is available
<b>Product Data</b>	
<b>Form/Colour</b>	Powder / Concrete grey
<b>Packaging</b>	25 kg bag
<b>Storage</b>	Dry, cool, shaded place
<b>Shelf life</b>	Min. 6 months if stored properly in unopened, original packaging



## Technical Data

<b>Density</b>	~ 1.60 kg/ltr (bulk density of powder) ~ 2.20 kg/ltr (density of fresh mortar)
<b>Mixing ratio</b> <b>(Flowable consistency)</b>	SikaGrout : water = 1 : 0.150 (parts by weight) ~ 3.75 litres of clean water per 25 kg bag
<b>Consumption</b>	1 bag yields approx. 13.10 litres of mortar Approx. 76 bags required for 1 (one) m <sup>3</sup> of mortar
<b>Application temperature</b>	Minimum 10 °C Maximum 40 °C
<b>Minimum gap</b>	SikaGrout 212-11: 8 mm SikaGrout 214-11: 10 mm
<b>Maximum gap</b>	Please contact Sika Technical Service Department

### Performance (27 °C / 65 % r.h)

Properties	Value	Standard
Water content	15 %	
Flow Table Spread	27 - 32 cm	ASTM C230-90, 0 strokes
Bleeding	Nil	ASTM C940 - 89
Expansion (24 h)	≥ 0.1%	ASTM C940 – 89
Initial setting time	≥ 5 h	ASTM C403 – 90
Final setting time	≤ 12 h	ASTM C403 – 90

### Compressive strength (27 °C)

1 day	≥ 25 N/mm <sup>2</sup>	ASTM C942 - 86
3 days	≥ 41 N/mm <sup>2</sup>	ASTM C942 - 86
7 days	≥ 52 N/mm <sup>2</sup>	ASTM C942 - 86
28 days	≥ 60 N/mm <sup>2</sup>	ASTM C942 - 86

## Application

### Surface preparation

Concrete surfaces should be clean, sound and free from oil, grease, laitance and loose particles.

Metal surfaces (iron and steel) should be free from scale, rust, oil and grease.

Absorbent substrates must be saturated thoroughly, but no standing water.

### Mixing

Powder should be added to the pre-gauged water to suit the desired consistency.

Mix mechanically for at least 3 minutes with a low speed electric drill (max. 500 r.p.m.) with a disc agitator attached, until a smooth consistency is achieved.

Mixing equipment such as two arms, forced action basket/pan type mixer can also be used.

<b>Application</b>	<p>Pour mortar after mixing. Ensure that air entrapped into the grout is allowed to escape. When carrying out base plate grouting, ensure sufficient pressure head is maintained to keep mortar flow uninterrupted. Make sure that necessary form work is firmly in place and watertight. To achieve optimum expansion result, apply mortar as quickly as possible.</p> <p><b>Grouting of machine beds</b></p> <p>Pre-wet thoroughly, no standing water in bolt holes. If possible, grout anchor first, and the mortar bed in the second operation. Ensure continuous flow of mortar.</p> <p><b>Grouting base plate</b></p> <p>Prewetting for approx. 24 hours, no standing water. Maintain constant hydro-static pressure to continuous flow. Use steel rods or chain to make sure that all cavities are filled. Make sure that entrapped air can escape easily.</p> <p><b>Grouting of large cavities / large volume</b></p> <p>Depending on the volume to be filled and thickness of gap, large aggregates, e.g. 4-8 mm, 8-16 mm or 16-32 mm may be added to the SikaGrout 214-11 at a ratio of between 50-100% by weight of SikaGrout 214-11 powder. Round aggregates are more suitable than crushed ones.</p> <p>As a rule of thumb, minimum thickness of gap to be grouted shall be 3 times max. grain size diameter of aggregate.</p> <p>For grouting large section thicker than 60-mm, addition of large aggregate and/or use of cold water will minimize temperature rise generated during early hardening period.</p> <p>Special Anchoring (rock bolt in tunnels). Please consult Sika for additional information on anchoring and grouting products.</p>
<b>Curing</b>	Keep visible, free mortar surface as small as possible and protect it from premature drying out by standard curing practice (keep moist, cover with wet hessian, use of curing compound e.g. Antisol E)
<b>Cleaning</b>	Clean all tools and equipment with water immediately after use. Hardened mortar can only be removed mechanically.
<b>Notes on application/Limits</b>	<p>Minimum application temperature is 10°C. At temperature lower than 20°C setting time and strength gain will be slower.</p> <p>Normal curing practice should be observed for at least 3 days wherever mortar is exposed.</p> <p>In case of grouting large cavities/volume, SikaGrout 214-11 is the most suitable.</p>

## Health and Safety Information

<b>Information</b>	
<b>Ecology</b>	Do not dispose into water
<b>Transportation class</b>	Non-Hazardous
<b>Waste disposal</b>	According to local law
<b>Important notes</b>	SikaGrout is cement base and is therefore alkaline. Suitable precautions should be taken to minimize direct contact with the skin. If the material gets into the eyes, rinse immediately with clean water and seek medical attention.

## Disclaimer

*The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.*



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