

## SikaGrout® 214 ae

Cementitious, High Early Strength, Non Shrink, Precision Grout

**Description** SikaGrout®-214 ae is a cementitious, free flowing, economical, non-shrink precision grout with high ultimate strength. Suitable for use in hot climatic conditions.

**Uses** SikaGrout® -214 ae precision grout is used for grouting in the following:

- Machine foundations
- Columns in pre-cast construction
- Base plates
- General concrete repairs

**Advantages** SikaGrout® - 214 ae is an easy to use grout requiring only the addition of water. It offers the following beneficial properties:

- Easy to mix
- Good flow characteristics
- Dual expansion system
- Adjustable consistency
- High final strengths
- Non corrosive and iron free

**Standards** Complies with CRD-C621-83-10.2 and ASTM C1107 as Type C.

### Product Data

**Type** Mixture of Portland Cement and graded aggregates

**Form** Grey powder

**Packaging** 25 kg bags

**Storage condition** Store in original sealed containers under shade in a cool and dry environment between 5°C and 35°C.

**Shelf Life** 12 months minimum from date of production if stored properly in original unopened containers.

### Technical Data

Mixing Ratios	Consistency	Water per 25 kg bag	Water/Powder Ratio
	Flowable (max. strength)	3.0 – 3.25 liters	0.12 – 0.13
	Highly flowable (max. flow)	3.25 – 3.50 liters	0.13 – 0.14

**Fresh Density** ~2200 kg/L

**Pot Life (25°C)** More than 4 hours



<b>Mechanical Strengths</b> (W/P = 0.13, 25°C)		1 day	28 days
	Compressive Strength (ASTM C109)	~35N/mm <sup>2</sup>	~70N/mm <sup>2</sup>
	Flexural Strength (BS 4551)		~10N/mm <sup>2</sup>
	Bond Strength (ASTM C 882)		>1.15N/mm <sup>2</sup>
Thickness	Minimum gap = 10 mm, Maximum = 75 mm per pour		
E Modul (static)	Approximately 35,000 N/mm <sup>2</sup>		
<b>Thermal expansion coefficient</b>	Approximately 11x10 <sup>-6</sup> m/m per °C		
<b>Expansion (CRD C 621)</b>	+0.08% after 28 days		
<b>Yield</b>	12.7 – 13.1 liters per 25 kg bag, depending on water addition		
<b>Application Details</b>			
<b>Substrate Preparation</b>	Concrete surfaces should be clean, sound and free from oil, grease, cement laitance and all loosely adhering particles. Absorbent surfaces should be saturated thoroughly. Metal surfaces (iron and steel) should be free from scale, rust, oil and grease.		
<b>Mixing</b>	<b>SikaGrout®-214 ae</b> is best mixed in a forced action mixer, for 2-3 minutes or until the mix is free of lumps, not longer than 5 minutes. Normal tumble type concrete mixers are NOT suitable. Do not mix more grout than can be placed within 15-20 minutes. DO NOT ADD EXTRA WATER OR OTHER INGREDIENTS.		
<b>Application</b>	Before pouring, however, let the mixed grout stand for approximately 5 minutes after mixing to allow entrapped air to escape. Pour into the prepared area such that the grout has the shortest distance to travel. Ensure that air displaced by the grout is allowed to escape. When carrying out the base plate grouting, ensure a sufficient head pressure to keep the mortar flowing. All exposed areas of the mortar surface should be kept as small as possible.		
<b>Curing</b>	Treat exposed surfaces with Antisol-E curing compound or use other approved Curing methods such as polyethylene sheeting or wet Hessian.		
<b>Cleaning</b>	Clean equipment and mixer immediately after application with water. Hardened material can only be removed mechanically.		



Remarks	<p>Use <b>SikaGrout® - 214ae</b> for grouting only Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing Where maximum thickness exceeds 75 mm , consider the use of SikaCrete® – 214 AE At high temperatures, use chilled water for mixing to keep the temperature below 30°C In hot weather, base plates and foundations must be shaded from direct sunlight. Condition bags of grout prior to use Depending on requirements and site condition, the addition of up to 100% of dry, single size and clean coarse aggregates is possible. Trials are recommended to confirm suitability of aggregates to be employed. For additional information on SikaGrout® - 214ae or other grouting materials Contact our technical services department.</p>
Notes	<p>All technical data stated in this product data sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.</p>
Safety	<p>For information and advice on safe handling practices , storage and disposal of chemical Products, users should refer to the most recent MSDS containing physical, ecological, Toxicological and other safety related data.</p>
<b>Legal Notes</b>	<p>The information, and, in particular, the recommendations relating to the application and end use of Sika Products, are given in good faith based 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 products suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The propriety rights of third parties must be observed. All orders are accepted subject to our current terms of sales 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.</p>



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