

SikaGrout®-214

Cementitious, High Early Strength, Non-Shrink, Precision Grout

Product Description	SikaGrout®-214 is a pre-bagged, cementitious, precision grout that expands in two stages to sufficiently counteract the plastic shrinkage normally associated with cement grouts. Suitable for use in tropical and hot climatic conditions.
Uses	SikaGrout®-214 precision grout is used for grouting in the following: <ul style="list-style-type: none">■ Machine foundations■ Columns in pre-cast construction■ Concrete anchors■ Cavities, gaps and recesses■ Base plates■ Structural concrete repairs
Advantages	SikaGrout®-214 is an easy to use grout requiring only the addition of water. It offers the following beneficial properties: <ul style="list-style-type: none">■ Easy to mix■ Good flow characteristics■ High early strength■ Adjustable consistency■ High final strength■ Non shrink■ Non corrosive and Iron free
Standards	Complies to ASTM C1107 and CRD- C 621-83
Product Data	
Type	Mixture of Portland Cement and graded aggregates
Form	Grey Powder
Packaging	25 kg bag
Storage Condition	Store in a dry area in original packaging between 5°C and 35°C. Protect from direct sunlight
Shelf life	12 months minimum from production date if stored properly in original unopened packaging



Technical Data

Mixing ratio	Consistency	Water per 25 kg bag	Water/Powder Ratio
	Plastic consistency	2.75 - 3.00 lt.	0.11 – 0.12
	Flowable (max. strength)	3.00 – 3.25 lt.	0.12 – 0.13
	Highly flowable (max. flow)	3.50 – 3.75 lt.	0.14 – 0.15

Density 2200 kg/m³ (fresh mortar)

Mechanical Strengths, (W/P=0.13), at 25°C	Compressive Strength (ASTM C109)	<u>1 day</u> ~ 30 N/mm ²	<u>28 days</u> ~ 65 N/mm ²
	Flexural strength (BS4551)		~10 N/mm ²
	Bond Strength (Pull off)		~ 2 N/mm ²

Thickness Minimum gap = 10 mm, Maximum = 100 mm per pour

E-Modul (static) ~ 37'000 N/mm²

Thermal expansion coefficient Approximately 12x10⁻⁶ m/m per °C

Expansion 0.025 - 0.10% after 28 days (CRD C 621)

Yield 12.3 - 12.8 liters per 25 kg bag, depending on water addition

Application Details

Substrate preparation 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.

Mixing Water is added to the pre-mixed powder to suit the consistency required, usually 3 liters per 25 kg bag (at elevated temperatures up to 3.75 lt.). Mix mechanically with a slow speed drill (maximum 500 rpm) for at least 3 minutes and until a smooth even consistency is achieved.

Application Before pouring, however, let the mixed grout stand for approximately 5 minutes after mixing to allow entrapped air to escape. Pour the mixed grout 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 base plate grouting, ensure sufficient head of pressure is maintained to keep mortar flowing.
Exposed areas of the mortar surface should be kept as small as possible.

Curing Treat exposed surfaces with Antisol-E Curing Compound or use other approved curing methods.

Cleaning Clean equipment and mixer immediately after application with water. Hardened material can only be removed mechanically.

Remarks **Use SikaGrout®-214 for grouting only.**

- Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing.
- Where maximum thickness exceeds 100 mm, consider the use of Sikacrete 114.
- At high temperatures use chilled water for mixing to keep grout 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 conditions, the addition of up to 100% of dry, single size and clean aggregates is possible. Trials are recommended to confirm the suitability of aggregates to be employed.

For additional information on **SikaGrout®-214** or other grouting materials contact our Technical Services Department.

Notes 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.

Safety For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Legal Notes

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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