

SikaGrout® 214-11 HS

Shrinkage Compensated, High Early Strength, Cementitious Grout

Description SikaGrout® 214-11 HS is a ready to use, shrinkage compensated, non ferrous, high early strength, self-levelling, bearing grout. Pre-mixed and selectively graded materials result in a dense homogeneous mix.

Uses SikaGrout® 214-11 HS is designed to counteract the normal shrinkage of mortar and concrete and to absorb and minimize effects of vibration on foundations. The high early strength property is suitable for work that requires early loads including machine bases structural columns, prestressed girders, bridge bearings, rail posts and seatings bolts etc.

- Advantages**
- Excellent flowability
 - Good dimensional stability
 - Controlled expansion
 - Chlorides-free; will not rust, bleed, or harm metal on contact
 - High early compressive strength; allows earlier loading and minimizes costs
 - High early strength produces minimal downtime for maintenance and repairs
 - Non toxic, non corrosive
 - Ready and easy to use
 - Economical

Certificates Local test report is available

Product Data

Form/Colour Powder / Concrete grey

Packaging 25 kg bag

Storage Dry, cool, shaded place

Shelf life Min. 6 months if stored properly in unopened, original packaging

Technical Data

Density ~ 1.60 kg/ltr (bulk density of powder)
~ 2.20 kg/ltr (density of fresh mortar)



Mixing ratio (Flowable consistency)	3.25 - 3.50 litres of clean water per 25 kg bag
Consumption	1 bag yields approx. 13 litres of mortar Approx. 77 bags required for 1 (one) m ³ of mortar
Application temperature	Minimum 10 °C Maximum 40 °C
Minimum gap	10 mm
Maximum gap	Please contact Sika Technical Service Department

Performance (27°C / 65 % r.h)	Properties	Value	Standard
	Water content	13 - 14 %	
	Flow Table Spread	25 - 32 cm	ASTM C230-90, no strokes
	Bleeding	Nil	ASTM C940 - 89
	Expansion (at 3h)	≥ 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	≥ 40 N/mm ²	ASTM C349 / C109
	3 days	≥ 60 N/mm ²	ASTM C349 / C109
	7 days	≥ 70 N/mm ²	ASTM C349 / C109
28 days	≥ 80 N/mm ²	ASTM C349 / C109	

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.

Application

Pour mortar after mixing. Ensure that air entrained 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

Grouting of machine beds

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.

Grouting base plate

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.

Grouting of large cavities / large volume

Please contact Sika Technical Service Department for further advice

Curing	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)
Cleaning	Clean all tools and equipment with water immediately after use. Hardened mortar can only be removed mechanically.
Notes on application/Limits	Minimum application temperature is 10°C. At temperature lower than 20°C setting time and strength gain will be slower. Normal curing practice should be observed for at least 3 days wherever mortar is exposed.

Health and Safety information

Ecology	Do not dispose into water
Transportation class	Non-Hazardous
Waste disposal	According to local law
Important notes	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. The Strength values mentioned are average values of laboratory tests. The results on the site may vary due to different environment, curing conditions and testing. Trials should be always conducted before application. Always refer to the latest updated product data sheet.

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.

Construction



Sika Limited (Vietnam)
Nhon Trach 1 Industrial Zone,
Nhon Trach Dist., Dong Nai Province
Tel: (84-61) 3560 700 Fax: (84-61) 3560 699
www.sika.com.vn, sikavietnam@vn.sika.com

