

PRODUCT DATA SHEET

SikaGrout[®]-214

HIGH PRECISION, DUAL-SHRINKAGE COMPENSATED CEMENTITIOUS GROUT

DESCRIPTION

SikaGrout[®]-214 is a cement based flowable, two stage expanding grout with selected aggregate.

USES

SikaGrout[®]-214 is used as free flowing pouring mortar suitable for grouting:

- Heavy equipment / machine bases
- Base plates
- Filling cavities, gaps and recesses
- Anchoring bars

CHARACTERISTICS / ADVANTAGES

- High final strengths
- Rapid strength development
- Shrinkage compensated
- Fluid consistency
- No segregation or bleeding, allowing good adherence and load transfer
- Easy to use (ready to mix powder)
- Fast strength development
- Non-corrosive. It does not contain metallic elements or chlorides
- Impact- and vibration resistant

PRODUCT INFORMATION

Chemical Base	Cement, selected fillers and aggregates, special additives
Packaging	25 kg bag
Appearance / Colour	Grey powder
Shelf Life	6 months from date of production
Storage Conditions	Store properly in dry conditions in undamaged and unopened original sealed packaging
Bulk Density	~1.35 kg/l (of fresh grout) at 27 °C
Maximum Grain Size	2.36 mm

TECHNICAL INFORMATION

Compressive Strength	1 Day	3 Days	7 Days	28 Days	ASTM C 109 30°C
	25 N/mm ²	35 N/mm ²	45 N/mm ²	65 N/mm ²	
Tensile Strength in Flexure	7 days	28 days		ASTM C 293-79 30°C	
	7 N/mm ²	9 N/mm ²			
Expansion	0.38				

APPLICATION INFORMATION

Mixing Ratio	For Flowable Water : Powder = 0.14 to 0.16 by weight (3.5 ltr to 4.0 ltr water for 25 kg bag) For Pourable Water : Powder = 0.12 to 0.14 by weight (3.0 ltr to 3.5 ltr water for 25 kg bag)
Consumption	2100~2300 kg/m ³ at Water : Powder ratio of 0.14 ~ 0.16
Layer Thickness	10 mm minimum / 100 mm maximum
Ambient Air Temperature	+5 °C minimum / +40 °C maximum
Substrate Temperature	+5 °C minimum / +40 °C maximum
Pot Life	20 minutes at +30°C

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete shall be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by the grout.
- Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.
- The concrete substrates should be pre-soaked with clean water continuously for 2 - 6 hours to ensure a saturated surface dry condition throughout the operation.
- The concrete "pull off" (tensile) strength should be > 1.0 MPa.
- Install appropriate formwork. Immediately before pouring remove all excess or standing water from within any formwork.
- Steel, iron: Clean, free from oil or grease, rust and scale etc.

MIXING

- SikaGrout®-214 can be mixed with a low speed (< 500 rpm) hand drill mixer to avoid entraining too much air. Mix only full bags for best results.
- Pour the recommended water in a suitable mixing container. While stirring slowly, add the powder to the water and mix thoroughly at least for 3 minutes adding additional water within the mixing time if necessary to the maximum specified amount to adjust the grout to the required consistency.
- Dependent on the desired consistency and flow

properties, the mixing ratio can be adjusted. Don't use concrete tilting mixer.

- Do not mix more grout, which cannot be used within Pot Life.

APPLICATION

- Pour grout immediately after mixing into the prepared openings. Ensure that air displaced by the grout can easily escape; otherwise entrapped air will prevent full contact grouting
- Wet porous substrates to saturated surface dry condition
- When grouting base plates etc., ensure that a continuous and sufficient head of pressure is maintained to keep the grout flowing
- To make optimum use of the products expansion properties, apply the grout as quickly as possible (within max. 15 minutes)

CURING TREATMENT

- Keep visible exposed grout surfaces to a minimum.
- Protect the fresh material from premature drying using appropriate curing method e.g. curing compound, moist textile membrane, polythene sheet, etc.

CLEANING OF TOOLS

- Clean all tools and application equipment with water immediately after use
- Hardened/cured material can only be mechanically removed

LIMITATIONS

- Use SikaGrout®-214 for grouting only; do not use SikaGrout®-214 for patch repair work etc.

- Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing.
- Use chilled water for mixing in case of high ambient temperature.
- Use hot water for mixing in case of very low ambient temperature.
- Depending on requirements and site conditions the addition of dry, single size and clean aggregates is possible. Trials are recommended to confirm suitability of aggregates to be used.
- For large bedding holes and higher gaps duly washed coarse aggregates of size 6mm down may be mixed with SikaGrout®-214 in the proportion of grout: aggregate= 2:1 (by weight).
- For additional technical information on SikaGrout®-214 or other grouting materials contact the technical services department.

BASIS OF PRODUCT DATA

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.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) 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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