

PRODUCT DATA SHEET

SikaGrout[®]-217

High Performance, Shrinkage Compensated Grout

DESCRIPTION

SikaGrout[®]-217 is a ready to use cementitious mortar. After mixing with water, it yields a grey fluid mortar

USES

- Grouting of turbines,
- Grouting of beams or bedding for bridges' bearing devices
- Assembly of prefabricated elements in metal, reinforced concrete or prestressed concrete
- Precision grouting of industrial equipment subject to chocks and vibrations
- Anchoring of rails
- Anchoring of rebars in horizontal elements

CHARACTERISTICS / ADVANTAGES

- SikaGrout[®] 217 does not contain metallic aggregates nor chloride. It does not corrode in presence of humidity, but rather protects steel rebars from corrosion thanks to its alkaline pH.
- It has high flexural and compressive strengths, even early strength, which allows for quick machines commissioning
- SikaGrout[®] 217 is shrinkage-compensated. A controlled expansion system is triggered to compensate the effect of first and second shrinkage
- It has excellent adhesion on concrete, mortar and steel. It ensures a monolithic link and resists perfectly to shocks and vibrations
- It is not altered by important vibrations, humidity or temperature; it resists to water and oil.

APPROVALS / CERTIFICATES

Class R4 of BS EN 1504-3 and BS EN 1504-6

PRODUCT INFORMATION

Composition	Hydraulic binders, aggregates, additives and admixtures
Packaging	25 KG
Shelf life	12 months in original unopened packaging
Storage conditions	Store properly in original unopened, sealed and undamaged packaging. Keep away from direct sunlight.
Appearance / Colour	Grey Powder
Maximum grain size	2.36 mm
Density	Fresh mortar : ~ 2.00 kg/litre

TECHNICAL INFORMATION

Compressive strength	1 Day	7 Days	28 Days
	20 - 25 MPa	45 - 50 MPa	55 - 60 MPa
The above comprehensive strength test results are based on EN 196-1 (40mm x 40mm x 160 mm Prism Casting)			
Tensile strength in flexure	Approximately - 10.0 MPa		
Tensile adhesion strength	Adhesion to concrete and steel: > 2.0 MPa		
Expansion	~ 0.25		

APPLICATION INFORMATION

Consumption	A 25 kg bag of SikaGrout®-217 mixed with 3.25 - 3.50 liters of water yields about 14 liter of fresh mortar. Note: Characteristics are obtained for a nominal amount of water is between 13% and 14% of the dry mix. The consumption data is theoretical and excludes allowances for loss wastage, surface profile and porosity.
Layer thickness	Minimum 10 mm/ maximum 150 mm Thicker applications can be achieved. Contact Sika® Technical Services Department for further information.
Ambient air temperature	The ambient temperature shall be between + 5 °C and + 35 °C.
Mixing ratio	3.25 L - 3.50 L of water per 25 Kg bag
Pot Life	20 Minutes As the temperature will affect the pot life, application temperature: <ul style="list-style-type: none">▪ Above 23 °C will reduce the pot life and flow▪ Below 23 °C will extend the pot life and flow

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER INFORMATION

Limitations are as follows:

- Do not exceed water addition
- Not to be used for patch repair works
- Do not use vibrating pokers
- Use only on clean, sound substrate
- Do not apply when there is a risk of frost
- Pour or pump from one side only
- Keep exposed surfaces to a minimum

IMPORTANT CONSIDERATIONS

Similar to cementitious mortars. Avoid contact with eyes and skin. Do not inhale powder.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- **Concrete, mortar, stone:** Surfaces must be sound, thoroughly clean, free from ice, oils, grease, standing water and any loose or friable particles and any other surface contaminants. The concrete "pull off" (tensile) strength should be > 1.0 MPa.
- **Steel, iron:** Clean, free from oil or grease, rust and scale etc.
- **Shutter/Formwork:** All formwork should be of adequate strength, treated with release agent and sealed to prevent leakage. Sealing can be achieved by using Sikaflex® -11FC+ sealant beneath or around formwork and between joints. Ensure formwork includes outlets for extraction of the pre-soaking water. A header box/hopper should be constructed on one side of the formwork so that a grout head of 150-200 mm can be maintained during the grouting operation.
- The substrate should be prepared by suitable mechanical preparation techniques such as high pressure water jetting, breakers, blastcleaning, scabblers, etc.
- 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. Immediately before pouring grout, remove all

excess or standing water from within any formwork, cavities or pockets.

MIXING

- Place the water into a forced action grout mixer or in a clean drum.
- Slowly add complete bag of SikaGrout®-217 into the water and continuously mix for 2 minutes in mixer to achieve a uniform and lump free consistency.
- Alternatively use a slow speed drill (200-500 rpm) and helical mixer.
- Dependent on the desired consistency and flow properties, the mixing ratio can be adjusted. Measure the appropriate amount of water to achieve the desired grout consistency given in the table below.
- Heat water if necessary to achieve a temperature between 15-23°C (for extremely cold temperatures conditions)

APPLICATION

Application is done by pouring, pumping or injection. Adding Aggregates in cases where there are important thicknesses to fill, it is possible to form a grouting micro-concrete having good fluidity and good strength at 28 days. This is done by adding aggregates with grains sizes 3/8 mm at a ratio of 12.5 kg per 25 kg bags of SikaGrout®-217. Use 3.25 - 3.5 liter of mixing water.

CURING TREATMENT

After SikaGrout® 217's placement, it shall be protected against wind and sun exposure during its hardening.

CLEANING OF EQUIPMENT

Clean all equipment and tools with water immediately after use. Dry hardened material can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

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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Product Data Sheet

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