BUILDING TRUST

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 pre-stressed concrete
- Precision grouting of industrial equipment subject to chocks and vibrations
- Anchoring of rails
- Anchoring of rebars in horizontal elements

FEATURES

- 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.
- Possible contact with drinking water.
- It is resistant to sea water and sulphate water.
- It has good resistance to internal frost and chipping.
- 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.
- It can be mixed with fillers to make thick or thin wedging and sealing lume.

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 and colour	Grey Powder
Maximum grain size	1.6 mm
Density	Fresh mortar : ~ 2.20 kg/litre

TECHNICAL INFORMATION

Compressive strength	Indicative mechanical strengths without the addition of loads 3/8 mm Ac-

cording to EN 12190 (4 x 4 x 16 cm specimens, stored at +20°C and 100%RH):
Tempered with 3.75 liters of water/25 bag

Time	(Compressive strength Mpa)
24h	25
7 days	45
28 days	55

Indicative mechanicalstrengths with addition of 3/8 mm loads (excluding scope of application of the NF mark) According to EN 12390-3 (cubes 10 x 10 cm, stored at +20°C and 100%RH):
Charged 1 to 0.5 (4.1 liters of water / bag 25 kg + 12.5 kg load 3/8 mm):

Time	Compressive strength (Mpa)
24h	30
7 days	55
28 days	70

Charged 1 to 1 (4.5 liters of water / bag 25 kg + 25 kg load 3/8 mm)

Time	Compressive strength (Mpa)
24h	30
7 days	55
28 days	70

Tensile adhesion strength	Adhesion to concrete and steel: > 2 MPa
Pull-out resistance	Reinforcement Pull-Out Tests Under load of 75 kN displacement: (NF EN 1881) < 0.6 mm at 7 days
Consumption	A 25 kg bag of SikaGrout®-217 mixed with 3.25 to 3.5 liters of water yields about 14 litres of fresh mortar. To fill out a lume of one litre of cushioning or sealing, the consumption is therefore approximately 2 kg of SikaGrout® -217. Note: Characteristics are obtained for a nominal amount of water is between 13% and 14% of the dry mix.
Layer thickness	Minimum 10 mm / maximum 150 mm
Flowability	Initial fluidity at Marsh cone (according to EN 455) - 15 sec
Ambient air temperature	The ambient temperature shall be between + 5 °C and + 35 °C
Mixing ratio	Amount of mixing water is 3.25 to 3.5 liters per 25 kg bag. In on-site practice, this quantity can be adjusted between 3.5 and 3.75 liters depending on the climatic conditions and the desired consistency. Note: Characteristics are obtained for a quantity of water between 13% and 14%.
Pot Life	30 Minutes
Setting time	Values measured in the laboratory, given for information purposes only (according to NF P 15- 431) :

Temperature	+5 ºC	+20 ºC	+30 ºC
Initial Setting	20 h	8 h 30 mins	5 h
Final setting	24 h	10 h	6 h

Application time

Tempered with 2.5 to 3.75 litres/25 kg bag

Temperature	Tempered with 2.5 to 3.75 liters/25 bag Kg
+5º	~ 5 h
+20º	~ 3 h
+30º	~ 2h

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.

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

The substrate must be clean, healthy and have undergone a thorough treatment. Suitable surface trimming to allow it to be removed Squeeze out any part that is not or does not adhere very well. It must be free of traces of oil, grease, milt, curing agent and any other substance may adversely affect the adhesion of SikaGrout®-217 and to the monolithism of the whole. It must have a cohesion of at least 1 MPa in Direct traction. The substrate, concrete or mortar, must be prepared mechanically (shot blasting, hydroblasting, or any other appropriate method). When applying, the substrate should be saturated with water. To do this, water it thoroughly the day before and moisten it. If necessary, just before the start of the work. However, make sure that there are no film or puddle on the surface, which could Interfere with mortar adhesion.

MIXING

Put the necessary water into the mix container and gradually add SikaGrout®-217 while stirring in order to avoid lump formation. Continue stirring until a homogenous mix is obtained (2 to 3 minutes). The mixing can be done in an open container using an electric or pneumatic stirrer working at low speed (around 300 rpm)

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 liters of mixing water.
Waiting time before commissioning: The waiting time before commissioning depends on the required mechanical strength. It is generally ~ 24 hours at a temperature of 20 °C

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 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

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