

## PRODUCT DATA SHEET

# SikaGrout®-210

#### CEMENT BASED GROUTING MORTAR

#### **DESCRIPTION**

SikaGrout®-210 is a single component, cement based, flowable, ready to use grouts that expand to sufficiently counteract the plastic shrinkage normally associated with cement grouts.

#### **USES**

SikaGrout®-210 is suitable for the following grout applications;

- Machine foundations
- Rail beds
- Columns in pre-cast construction
- Concrete anchors
- Cavities, gaps and recesses
- Bearing plates

## **CHARACTERISTICS / ADVANTAGES**

SikaGrout®-210 is an economical and easy to use material requiring the simple addition of water. It provides following properties;

- Easy to mix, only add water
- Good flow characteristics
- Adjustable consistency
- High ultimate strengths
- Impact and vibration resistant
- Non-corrosive, non-toxic

## **APPROVALS / CERTIFICATES**

Conforms the requirements of EN1504-3 R4 Classification.

Conforms the requirements of EN1504-6.

#### **PRODUCT INFORMATION**

Chemical base	Cement, selected aggregates and special additives	
Packaging	25 kg bags	
Appearance / Colour	Grey, powder	
Shelf life	6 months from date of production	
Storage conditions	SikaGrout®-210 shall be stored properly in dry conditions in unopened and undamaged original sealed packing.	
Density	2,25 - 2,35 kg/dm <sup>3</sup> (fresh mortar)	
Maximum Grain Size	D <sub>max</sub> : 3 mm	
Soluble Chloride Ion Content	≤ 0.05 %	

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#### **TECHNICAL INFORMATION**

<b>Compressive Strength</b>	1 day	28 days	
	20 - 40 N/mm <sup>2</sup>	60 - 90 N/mm <sup>2</sup>	
Modulus of Elasticity in Compression	31 GPa	(EN 13142)	

#### APPLICATION INFORMATION

Consumption	For 1 litre fresh mortar, approximately 2,0 kg powder.  Approximately 1 bag can make 12.5 lt volume.	
Yield		
Layer Thickness	Min: 10 mm Max: 30 mm	
Ambient Air Temperature	The choice of grade depends on ambient temperature and required workability time and/or early strength development.  Between +0°C and +15°C: SikaGrout®-210  When using the product at a temperature higher than recommended, the workability time will be reduced. Similarly when using in a lower temperature, strength gain will be retarded.	
Substrate Temperature	+ 5°C min / + 30°C max	
Pot Life	~40 min. (20 °C)	

#### **APPLICATION INSTRUCTIONS**

#### **SUBSTRATE QUALITY / PRE-TREATMENT**

#### Concrete, mortar, stone:

Surfaces must be sound, 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.

#### SUBSTRATE PREPARATION

The substrate should be prepared by suitable mechanical preparation techniques such as high pressure water jetting, breakers, blast cleaning, 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

3,00 or 3,50 It water must be used for 25 kg powder material. Measure the appropriate quantity of water and place it into a suitable mixing pail. Pour slowly half bag powder while mixing by using low speed electric stirrer (max. 500 rpm). Continue mixing until a homo-

geneous free flowing grout is achieved. Then add rest of the powder in portions and mix until the desired application consistency can be obtained and ensure no unmixed grout remains stuck to the container. Please do not use more water than advised.

Mixing Time: 3 minutes minimum

Mixing Tools:Suitable mixing equipments are basket type mixers with one or two arms, forced actions or stand type mixers. Mix the powder material with the appropriate quantity of water by using low speed electric stirrer (max. 500 rpm) avoiding entraining too much air.

#### APPLICATION

Pour mortar immediately after mixing into the prepared openings. Ensure that air displaced by the grout is allowed to escape; otherwise entrapped air will prevent full contact grouting. When carrying out base plate grouting, ensure sufficient head of pressure is maintained to keep mortar flowing. To make optimum use of the products expansion properties, apply the grout as quickly as possible (within max. 15 minutes).

#### **CURING TREATMENT**

Exposed parts of the mortar surface should be kept as small as possible. Treat exposed surfaces Antisol Curing Compound or use any other approved curing methods (keep moist, cover with wet hessian etc.). In cold weather apply heat blankets or the other precautions must be taken to maintain a constant temperature.

#### **CLEANING OF EQUIPMENT**

Clean all tools and application equipment with water immediately after use.

Hardened/cured material can only be mechanically removed



#### IMPORTANT CONSIDERATIONS

Please only use SikaGrout®-210 for grouting works. Application thickness must be between 10 mm and 30 mm. If application thickness is thicker than recommended thickness, please use following recommendations; Up to 100 mm, 5-10 mm aggregate can be added to grout

Up to 150 mm, 5-15 mm aggregate can be added to grout

The amount of washed, clean and dry aggregate, which will be added to grout, must be less than half of grout amount by weight. In case of adding extra aggregate (preferably natural) to the grout, due to the reduction of cement, strengths and consistency can be reduced approx. 20-40%. After application curing shouldn't be neglected.

- Not to be used for patch repair work
- Do not use vibrating pokers
- Do not apply when there is a risk of frost
- Pour or pump from one side only
- For the best result, it is suggested to condition material to +15°C to +25°C before using.

#### **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.

#### 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.

## **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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