

## PRODUCT DATA SHEET

# SikaGrout<sup>®</sup>-520

(formerly MFlow 520)

High Strength, Non-shrink Cementitious, General Purpose Grout

### DESCRIPTION

SikaGrout<sup>®</sup>-520 is a cementitious, free flowing, general purpose, non-shrink precision grout. Suitable for use in hot and tropical climatic conditions.

### USES

SikaGrout<sup>®</sup>-520 is used for grouting in the following:

- Columns in pre-cast construction
- Cavities, gaps and recesses
- Base plates
- General concrete repairs

### FEATURES

SikaGrout<sup>®</sup>-520 is an economical and easy to use grout requiring only the addition of water. It offers the following beneficial properties:

- Easy to mix
- Good flow characteristics
- Non-shrink
- Early strength development even at flowable consistency
- Non-corrosive
- Pumpable

### PRODUCT INFORMATION

<b>Composition</b>	Portland cement, selected fillers and aggregates, special additives
<b>Packaging</b>	25 kg bag
<b>Shelf life</b>	12 months from date of production
<b>Storage conditions</b>	Store in original unopened packaging in cool and dry condition between +5°C and +35°C. Protect from direct sunlight, heat and moisture.
<b>Appearance and colour</b>	Grey Powder
<b>Maximum grain size</b>	~5 mm

### TECHNICAL INFORMATION

<b>Compressive strength</b>	<b>1 day</b>	~25 N/mm <sup>2</sup>	(BS 1881, Part 116)
	<b>3 days</b>	~40 N/mm <sup>2</sup>	
	<b>7 days</b>	~50 N/mm <sup>2</sup>	
	<b>28 days</b>	~60 N/mm <sup>2</sup>	
w/p ratio = 0.18 (4.5 L water / 25 kg)			

## APPLICATION INFORMATION

Fresh mortar density	~2.27 kg/l (+25 °C)		
Yield	~13 L / 25 kg bag		
Layer thickness	Min. 10 mm per layer Max. 80 mm per layer		
Ambient air temperature	+5 °C min. / +35 °C max.		
Mixing ratio	Consistency	Water per 25 kg bag	Water/Powder Ratio
	Flowable	4.5 L	0.18
Substrate temperature	+5 °C min. / +35 °C max.		

## 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.
- Internal Reference - Version: MBS\_CC-UAE/ FI\_520\_10\_2002/v2/03\_16/v3/12\_19

## FURTHER DOCUMENTATION

General Method Statement (GMS)

## IMPORTANT CONSIDERATIONS

- Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing.
- Where maximum thickness exceeds 80 mm, consider the use of other product from Sikagrout® or SikaEmaco® range.
- At high temperatures, use chilled water for mixing to keep grout mix temperature below < 30 °C.
- In hot weather, base plates and foundations must be shaded from direct sunlight. Condition bags of grout < 30 °C prior to use.
- SikaEmaco® S 422 or SikaEmaco® S 488 thixotropic fine mortars can be used to fix shims and alignment plates before grouting.
- For additional information on SikaGrout®-520 or other grouting materials contact Sika Technical Department.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

#### Concrete:

The concrete shall be thoroughly clean, rough, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means. Absorbent surfaces should be saturated thoroughly with clean water.

The application of a suitable bonding agent, such as Sikadur®-32 LP, Sikadur® ADH 1414 or SikaTop® Armatec®-110 EpoCem®, will improve adhesion on large areas, or where particularly dense concrete substrates are involved.

#### Steel Reinforcement:

Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed. Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting to SA 2 (ISO 8501-1). Embedded steel reinforcing should be treated with a suitable anticorrosion coating such as SikaTop® Armatec®-110 EpoCem® or SikaEmaco®-8100 AP. Reference shall be made to EN 1504-10 for specific requirements.

### MIXING

Add water according to above mentioned ratio into a clean mixing vessel before slowly adding the SikaGrout®-520 powder. SikaGrout®-520 is best mixed in a forced action mixer, for 2 to 3 minutes or until the mix is free of lumps, not longer than 5 minutes. Slow speed drill (maximum 500 rpm) can be also used for mixing. Normal tumble type concrete mixers are not suitable. Do not add extra water or other ingredients. Mix only full bags for best results.

## APPLICATION

Before pouring, let the mixed grout stand for approximately 5 minutes after mixing to allow entrapped air to escape. Pour into the prepared area in a way that the grout has the shortest distance to travel. Ensure that air displaced by the grout is allowed to escape. When carrying out base plate grouting, ensure a sufficient head of pressure is maintained to keep the mortar flowing. All exposed areas of the mortar surface should be kept as small as possible.

## CURING TREATMENT

Treatment of exposed surfaces with Sika® Antisol® range curing compound, is highly recommended for large areas of application. Use other approved curing methods such as polyethylene sheeting or wet hessian only for small exposed areas. Do not commence fogging until final set has been reached.

## CLEANING OF EQUIPMENT

Clean equipment and mixer immediately after application with water. 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 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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ISO 9001, 14001, 45001 – SGS  
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- Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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September 2024, Version 02.01  
02020100000002030