

## PRODUCT DATA SHEET

# Sikacrete<sup>®</sup>-113 PP SR

SULFATE RESISTANT, PUMPABLE, FREE FLOWING, SHRINKAGE COMPENSATED MICRO-CONCRETE FOR GROUTING AND REPAIR

### DESCRIPTION

Sikacrete<sup>®</sup>-113 PP SR is a cementitious, sulfate resistant, pre-bagged, free flowing, one component, non-shrink precision micro-concrete with high early and ultimate strength.

Suitable for use in hot and tropical climatic conditions.

### USES

Sikacrete<sup>®</sup>-113 PP SR precision micro-concrete is used for repair and grouting in various applications such as:

- Structural repair of deteriorated concrete
- Columns in precast construction
- Casting sections or members where the volumes required are too large for conventional grouts, and too small and inaccessible for normal concreting applications.
- Cavities, gaps and recesses
- Suitable for applications with sea water exposure
- Suitable for below ground applications in contact with aggressive soil exposure
- Re-profiling of damaged concrete members and re-profiling of pile tops using formwork for both pouring and pumping techniques.

### CHARACTERISTICS / ADVANTAGES

Sikacrete<sup>®</sup>-113 PP SR is an easy to use precision micro-concrete requiring only the addition of water. It offers the following beneficial properties:

- Easy to mix
- Very good flow characteristics
- Adjustable consistency
- Moderate heat of hydration
- Shrinkage compensated
- High final strength
- Non-flammable
- Vapour permeable
- Compatible with the properties of typical concrete

### PRODUCT INFORMATION

<b>Composition</b>	Sulfate resistant cement, selected fillers and aggregates, special additives
<b>Packaging</b>	25 kg bag
<b>Appearance / Colour</b>	Grey powder
<b>Shelf life</b>	12 months minimum from date of production
<b>Storage conditions</b>	Store in undamaged, unopened, original sealed packaging in dry condition at temperatures between +5 °C and +35 °C. Protect from direct sunlight, heat and moisture.
<b>Maximum Grain Size</b>	~5 mm

## TECHNICAL INFORMATION

<b>Compressive Strength</b>	+25 °C	<b>1 Day</b>	<b>7 Day</b>	<b>28 Day</b>	(ASTM C109)
	W/P = 0.11 (2.75 L water / 25 kg)	~35 N/mm <sup>2</sup>	~45 N/mm <sup>2</sup>	~60 N/mm <sup>2</sup>	
*Testing cubes 50 x 50 x 50 mm					
<b>Tensile Adhesion Strength</b>	≥ 1.5 N/mm <sup>2</sup> (or concrete failure)				(BS EN 1881)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	<b>Consistency</b>	<b>L water per 25 kg bag</b>	<b>Water / Powder Ratio</b>
	Flowable	2.75- 3.25	0.11 - 0.13
<b>Fresh Mortar Density</b>	~2.3 kg/l (25 °C)		
<b>Yield</b>	~12.2 L / 25 kg bag		
<b>Layer Thickness</b>	Min. 25 mm per pour Max. 300 mm per pour		
<b>Ambient Air Temperature</b>	+5 °C min. / +35 °C max.		
<b>Substrate Temperature</b>	+5 °C min. / +35 °C max.		
<b>Pot Life</b>	~60 min (25 °C)		

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

Concrete surfaces should be clean, rough, sound and free from oil, grease, cement laitance and all loosely adhering particles.

Absorbent surfaces should be saturated thoroughly with clean water. Metal surfaces (iron and steel) should be free from scale, rust oil and grease.

### BONDING AGENT STEEL PROTECTION

Embedded steel reinforcing should be free from scale, rust, oil and grease, and treated with a suitable anti-corrosion coating such as SikaTop® Armatec®-110 EpoCem®.

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

### MIXING

Add water according to the desired consistency into a clean mixing vessel before slowly adding the Sikacrete®-113 PP SR powder. Sikacrete®-113 PP SR 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 mix more grout than can be placed within 15 to 20 minutes. Do not add extra water or other ingredients. Mix only full bags for the best result.

## 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 such that the grout has the shortest distance to travel. Ensure that air displaced by the grout is allowed to escape. When carrying out the base plate grouting, ensure a sufficient head of pressure to keep the mortar flowing. All exposed areas of the mortar surface should be kept as small as possible.

### CURING TREATMENT

Treat exposed surfaces with Antisol®-WB curing compound or use other approved curing methods such as polyethylene sheeting or wet hessian. 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.

## IMPORTANT CONSIDERATIONS

- Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing.
- At high temperatures, use chilled water for mixing to keep the grout temperature below 30 °C.
- In hot weather, base plates and foundations must be shaded from direct sunlight. Condition bags < 30 °C prior to use.
- For additional information on Sikacrete®-113 PP SR or other grouting materials contact Sika Technical Department.

## 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.

### SIKA NORTHERN GULF

Bahrain / Qatar / Kuwait  
Tel: +973 177 38188  
sika.gulf@bh.sika.com  
gcc.sika.com

### SIKA SOUTHERN GULF

UAE / Oman / SIC  
Tel: +971 4 439 8200  
info@ae.sika.com  
gcc.sika.com

### SIKA SAUDI ARABIA

Riyadh / Jeddah / Damman  
Tel: +966 11 217 6532  
info@sa.sika.com  
gcc.sika.com



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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 OHSAS  
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