

# PRODUCT DATA SHEET

## Sikacrete<sup>®</sup>-105 Gunit HSF

HIGH STRENGTH, SILICA FUME BASED, FIBER REINFORCED, DRY SPRAY MORTAR FOR CONCRETE REPAIR

### DESCRIPTION

Sikacrete<sup>®</sup>-105 Gunit HSF is a one component, un-accelerated, cementitious, silica fume based dry spray mortar with fibers and high ultimate strength. Suitable for use in hot and tropical climatic conditions.

### USES

Sikacrete<sup>®</sup>-105 Gunit HSF is typically used in spray applications such as:

- Concrete repair work
- Levelling of large areas
- High strength mortar

### CHARACTERISTICS / ADVANTAGES

Sikacrete<sup>®</sup>-105 Gunit HSF is a ready for use, one component material providing the following benefits:

- Excellent workability
- Can be troweled and screeded after application
- High density
- Good adhesion to the substrate
- Limited rebound
- High ultimate compressive strength
- Sprayable
- Fiber technology reduces shrinkage, cracking and improves toughness

### PRODUCT INFORMATION

<b>Composition</b>	Cementitious mortar with different additives
<b>Packaging</b>	25 kg and 40 kg bag
<b>Appearance / Colour</b>	Grey
<b>Shelf life</b>	12 months minimum from production date
<b>Storage conditions</b>	Store in dry area in unopened original packaging at temperatures between +5 °C and +35 °C. Protect from direct sunlight, heat and moisture.
<b>Density</b>	~2.2 kg/l (+20 °C) (fresh mortar)
<b>Maximum Grain Size</b>	~2.40 mm

### TECHNICAL INFORMATION

<b>Compressive Strength</b>	<b>w/p ratio</b>	<b>1 Day</b>	<b>7 Days</b>	<b>28 Days</b>	(ASTM C109)
	= 0.14	≥ 30 N/mm <sup>2</sup>	≥ 50 N/mm <sup>2</sup>	≥ 70 N/mm <sup>2</sup>	
<b>Tensile Adhesion Strength</b>	≥ 1.5 N/mm <sup>2</sup> (28d) (or substrate failure)				(EN 1881)

## APPLICATION INFORMATION

<b>Consumption</b>	~22 kg/m <sup>2</sup> per 10 mm thickness. This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level, wastage, rebound, etc.. Consumption may vary due to the area to be sprayed (overhead or vertical) as well as the thickness of the applied material.
<b>Layer Thickness</b>	Min. 9 mm Max. 50 mm per one single layer
<b>Ambient Air Temperature</b>	Min. +5 °C / Max. +40 °C
<b>Substrate Temperature</b>	Min. +5 °C / Max. +40 °C

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

- Substrates must be properly cured, structurally sound, free of any loose or friable particles, clean, dry and free of any contaminants such as dust, dirt, oil, grease, cement laitance or efflorescence.
- Depending on the substrate condition and contaminants to be removed from the surface, perform adequate preparation techniques, such as water-jet washing or blast cleaning, in order to remove all traces of any materials that could reduce the product's adhesion to the substrate.
- For applications in hot climates / environments and / or on absorbent substrates, thoroughly pre-dampen the surface immediately prior to the product application, but avoid any ponding / standing water on the surface, which must not be damp to touch and not with a dark-matt / wet surface appearance i.e. it must be saturated surface dry (SSD).
- Steel surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting to SA 2 (ISO 8501-1)
- Reference shall be made to EN1504-10 for specific requirements.

### BONDING AGENT AND STEEL PROTECTION

When applied over critical substrates or reinforced concrete, damaged by corrosion the use of SikaTop® Armatec®-110 EpoCem as a bonding agent is advised.

### APPLICATION

Sikacrete®-105 Gunit HSF should be applied by using a suitable type of dry-spray concrete gun and a skilled nozzle man. Spray application can be started when the substrate has been suitably prepared, (wet down thoroughly the concrete surface, this is best done using the spray nozzle). Add the dry gunite mortar straight into the hopper of the concrete gun; the required water is added at the nozzle and adjusted by the operator. As soon as the final coat has been sprayed, the dry spray mortar can be leveled. Any areas where the coverage is found to be inadequate must be re-sprayed in proper manner. Don't use any rebound material for further application.

### CURING TREATMENT

Treat exposed surfaces with Antisol WB curing compound or use other suitable curing methods such as polyethylene sheeting or wet hessian. Do not commence fogging until final set has been reached.

## MAINTENANCE

### CLEANING

Uncured mortar should be removed from tools with water. To clean dry-spray cement guns, simply blowout with compressed air. Once cured, the mortar can only be removed mechanically.

## 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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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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### Product Data Sheet

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