

BUILDING TRUST

PRODUCT DATA SHEET

SikaGrout[®]-280 HS

HIGH PRECISION AND MICRO STEEL FIBRE REINFORCED, NON-SHRINK CEMENTITIOUS GROUT

DESCRIPTION

A non-shrink, cementitious premixed grout with micro steel fibre to provide excellent impact and vibration resistance.

USES

For grouting over a wide range of applications:

- Machine bedding/base plates
- Turbine generator set base plates
- Centrifugal compressors
- Crane rails
- Crusher Ball Mills
- Structure that has high vibration

CHARACTERISTICS / ADVANTAGES

- Easy to use, just add water and mix the micro steel fibre
- Good flow characteristic.
- Adjustable consistency.
- Rapid strength development.
- Highly improved Impact and vibration resistant compared to conventional cementitious grout
- Shrinkage compensated.
- High final strength.
- Non-Toxic.

PRODUCT INFORMATION

Packaging	25 kg bag (consist of grout and separate micro steel fibre pouch inside the bag)		
Shelf life	6 months from date of production if stored in undamaged and unopened original sealed bags		
Storage conditions	Stored in dry condition between +10 °C - +30 °C		
Appearance and colour	Powder / Grey		
Density	~2.28 kg/L		

TECHNICAL INFORMATION

Compressive strength	1 day	~40.0 N/mm ²	(ASTM C-349)
	3 days	~60.0 N/mm ²	
	7 days	~73.0 N/mm ²	
	28 days	~88.0 N/mm²	
Tensile strength in flexure	1 day	~2.0 N/mm ²	(ASTM C-348)
	3 days	~4.0 N/mm²	
	7 days	~9.0 N/mm²	
	28 days	~18.0 N/mm ²	

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Tensile adhesion strength	28 Days	,	~1.5 N/mm² (Concrete failure, over mechanically	
	28 Days	roughened concrete surface) ~2.5 N/mm ² (Over mechanically roughened grout surface)		
Expansion	1 - 3 h (at +27 °C)	0.3 - 0.8 %	(ASTM C-940)	
APPLICATION INFORMA	TION			
Mixing ratio	4.0 L per 25 kg bag (wa	4.0 L per 25 kg bag (water per powder = 16 % by weight)		
Consumption	~1 970 kg/m³ of morta	ır.		
Yield	12.70 L per 25 kg bag			
Layer thickness	Recommended thickne	Recommended thickness is 20 - 150 mm		
Flowability	Flow cone (mm) *measured after mixe	≥ 200 mm* d	(ASTM C230/230M)	

	*measured after mixed		
Material temperature	< +30 °C, max		
Ambient air temperature	+10 °C - +35 °C		
Substrate temperature	+10 °C - +35 °C		
Pot Life	25 min		
Setting time	Initial Setting Time (at +27 °C) Final Setting Time (at +27°C)	~5 - 8 h ~6 - 9 h	

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

- Minimum applications thickness : 20 mm.
- Recommended thickness of SikaGrout[®]-280 HS in one pour is 20 mm to 150 mm. If the application thickness exceeds 150 mm, special procedure must be taken to anticipate temperature rise.
- Variations in cement could cause shade differences in colour of the mortar.
- Use puncture resistant gloves when handling micro steel fibre.

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

SURFACE PREPARATION

- Remove dirt, oil, grease, loose material and other bond-inhibiting materials.
- Anchor bolts to be grouted must be degreased with suitable solvent.
- Concrete must be sound and roughened to promote mechanical adhesion.
- Prior to pouring, surface must be wetted to saturated surface dry.

FORMING

For pourable grout, construct forms to retain grout without leakage. Forms should be lined or coated with bond-breaker for easy removal. Forms should be sufficiently high to accommodate head of grout. Where grout tight form is difficult to achieve, use SikaSet Accelarator as water plug (refer to PDS SikaSet Accelarator).

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MIXING

Put measured quantity of water (depend on the required consistency) into a mixing vessel.

Add slowly the total contents of SikaGrout[®]-280 HS while mixing. Mix continuously for 2 minutes to achieve even consistency. Use a mechanically low speed drill (400 - 600 rpm) with mixing paddle or appropriately sized mortar mixer.

Pour micro steel fibre reinforced into mixed material SikaGrout®-280 HS, then mix mechanically for 1 minute to get homogeneous. Total mixing time is 3 minutes.

Before pouring, leave the mixture to stand for 2-3 minutes, in order to allow entrapped air to escape.

APPLICATION

Within 25 minutes after mixing, place grout into forms one side to avoid air entrapment. Do not vibrate. Use a suitable head box of 150 – 200 mm and maintain the grout head at all times to ensure a continuous flow. Gentle tapping or pulling loops of wire from one side may assist the flow of the mortar under difficult working conditions.

CURING TREATMENT

Wet cure for a minimum of 3 days with wet hessian, plastic sheet or apply a curing compound (Antisol).

CLEANING OF EQUIPMENT

Clean all tolls and application equipment with water immediately after use. Hardened and / or cured material can only be remove mechanically.

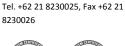
LOCAL RESTRICTIONS

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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