

SikaGrout FM

High performance, Non-Shrink Cementitious Grout

Description	A ready mixed, low heat cementitious grout incorporating silica fume which has excellent flowability and a special two-stage volumetric expansion characteristic to compensate the plastic shrinkage normally associated with cementitious grout. Complies to Corps of Engineer's specification CRD C-621 and ASTM C-1107
Use	For grouting over a wide range of applications: <ul style="list-style-type: none"> ■ Anchor bolts ■ Machine bedding/base plates ■ Supporting bridge bearing pads ■ Precast concrete sections ■ Dry pack applications ■ Cavities, gaps and recesses.
Advantages	<ul style="list-style-type: none"> ■ Easy to use just add water ■ Low heat development ■ Good flow characteristic ■ Adjustable consistency ■ Shrinkage compensated ■ High final strength ■ Very suitable for use in marine structure ■ Non-Corrosive ■ Non-Toxic
Consumption	~ 1.905 kg/m ³ of mortar.
Instruction For Use	
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 SikaGrout FM in dry pack consistency.
Mixing	Put appropriate quantity of water (depend on the required consistency) into a mixing vessel. Add slowly the total contents of SikaGrout FM while mixing. Mix continuously for 3 minutes to achieve an even consistency. Use a mechanically low speed drill (400–600 rpm) with helical type mixing paddle or appropriately sized mortar mixer.
Application	Within 25 minutes after mixing, place grout into forms from 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	Wet cure for a minimum 3 days with wet hessian, plastic sheet or apply a curing compound (Antisol)								
Limitation	Minimum application thickness : 10 mm Recommended thickness of SikaGrout FM in one pour is 20 mm to 100 mm. If the thickness exceeds 100 mm, special procedure must be taken to anticipate temperature rise. Iced water, add coarse aggregate to the mix, or both of them may be used to eliminate temperature rise. Keep the materials and substrate temperature lower than 30 ⁰ C Variations in cement could cause shade differences in colour of the mortar								
Technical Data									
Form	Powder								
Color	Grey								
Flow Condition	Flowable (Mod J cone : 6-12 sec)								
Water requirement (Litres per 25 kg bag)	4.0 (water per powder = 16% by weight)								
Yield (Litres per 25 kg bag)	13.15								
Mix Density	2.21 kg/l								
Compressive Strength (ASTM C-109)	<table border="0"> <tr> <td>1 days</td> <td>150 kg/cm²</td> </tr> <tr> <td>3 days</td> <td>300 kg/cm²</td> </tr> <tr> <td>7 days</td> <td>400 kg/cm²</td> </tr> <tr> <td>28 days</td> <td>550 kg/cm²</td> </tr> </table>	1 days	150 kg/cm ²	3 days	300 kg/cm ²	7 days	400 kg/cm ²	28 days	550 kg/cm ²
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Flexural Strength (ASTM C-348) 28 days	> 50 kg/cm ²								
Bond Strength to concrete 28 days	>15 kg/cm ² (concrete failure, over mechanically roughened concrete surface)								
to grout 28 days	>25 kg/cm ² (over mechanically roughened grout surface)								
Expansion (ASTM C-940) (at 27 °C)	0.30 – 1.20 %								
Initial Setting Time (at 27 °C)	4 – 8 hours								
Shelf Life	9 months when unopened and stored in dry condition								
Packaging	25 kg bag								
Handling Precautions:	<ul style="list-style-type: none"> ■ Avoid contact with skin & eyes. ■ Wear protective gloves and eye protection during work ■ If skin contact occurs, wash skin thoroughly ■ If in eyes open and flood with warm water. Seek medical attention without delay. ■ A full Material Data Sheet is available from Sika on request. 								

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 product 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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