

PRODUCT DATA SHEET

ThixoKing MS

WET-PROCESS APPLICATION SHOTCRETE MIX

PRODUCT DESCRIPTION

ThixoKing MS is a pre-blended, pre-packaged, wet-process shotcrete mix containing Portland cement, silica fume, air-entraining admixture, blended aggregates and other carefully selected components.

WHERE TO USE

- New construction including architectural exhibits, rockscapes, pools and other concrete structures

CHARACTERISTICS / ADVANTAGES

- Air-entrainment provides superior resistance to freeze-thaw cycling
- Improved pumpability and shootability
- Improved adhesive and cohesive plastic properties
- Significantly reduced rebound, resulting in lower material consumption
- Improved ability to build greater thicknesses in a single pass in both vertical and overhead orientations
- Low dust levels
- Designed with natural normal-density non-reactive aggregates to eliminate potential alkali-aggregate reactivity (AAR)

PRODUCT INFORMATION

Packaging	30 kg (66 lb) bag <i>*Custom packaging is available to suit specific project requirements</i>	
Shelf Life	12 months in original, unopened packaging	
Storage Conditions	Material should be stored in a dry covered area protected from the elements.	
Density	WET DENSITY 2000 kg/m ³ (125 lb/ft ³)	ASTM C38

TECHNICAL INFORMATION

Compressive Strength	7 days	25 MPa (3625 psi)	ASTM C1604
	28 days	35 MPa (5075 psi)	
Porosity	AIR CONTENT 7 % ± 2 %		ASTM C457
Freeze thaw resistance	100 % (excellent durability factor)		ASTM C666

APPLICATION INFORMATION

Yield	▪ Approx. 0.0185 m ³ (0.65 ft ³) per 30 kg (66 lb) bag
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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.

ENVIRONMENT, HEALTH & 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

SURFACE PREPARATION

Repair or rehabilitation

All surfaces to be in contact with ThixoKing MS must be free from dust, oil, grease or any other foreign substances that may interfere with the bond of the material. Remove all loose or delaminated concrete providing a roughened surface and a minimum of 20 mm (¾ in) clearance behind any corroded reinforcing steel. The perimeter of the repair area should be saw-cut a minimum of 20 mm (¾ in). Clean the area to be repaired with potable water, leaving the concrete saturated but free of standing water (SSD). For resurfacing applications, ThixoKing MS can be applied at a minimum thickness of 13 mm (½ in). For all applications exceeding 38 mm (1 ½ in) use King® MS-W1.

MIXING

Place 75 % of required water into mixer and slowly introduce entire bag of ThixoKing MS while the mixer is running. Allow ThixoKing MS to mix for a minimum of five (5) minutes. Slowly add balance of required water until desired slump has been obtained, not exceeding the maximum recommended water dosage. Maximum recommended water dosage is 5.0 L (1.32 US gal.) per 30 kg (66 lb) bag. Continue mixing and stop only after material has reached a homogeneous consistency.

APPLICATION

Apply ThixoKing MS in accordance with the *ACI 506 "Guide to Shotcrete"* publication.

OPTIMUM PERFORMANCE

- ThixoKing MS should not be applied when ambient, substrate and material temperatures are below +5 °C (40 °F) or above +35 °C (95 °F).
- For adverse temperatures, follow ACI recommendations for Cold/Hot Weather Concreting.
- Performance of in-place shotcrete relies heavily upon application techniques. To ensure optimum quality of in-place shotcrete, the material, equipment and key personnel should be pre-qualified before the start of the project.

CURING TREATMENT

Curing is essential to optimize physical properties of the shotcrete and minimize plastic shrinkage. ThixoKing MS should be cured immediately after material has reached initial set in accordance with *ACI 308 "Guide to Curing Concrete"*. Continuously moist cure for only a period of 24 hours. Curing is particularly critical in rapid moisture loss conditions such as high temperatures, high winds and low humidity.

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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