

PRODUCT DATA SHEET

Sika MonoTop[®]-100 Fire Resistant

REFRACTORY MORTAR

DESCRIPTION

Fast setting refractory mortar for bedding of refractory bricks and for the construction and repair of heat resistant elements

USES

- Construction and repair of heat resistant elements (e.g. barbecues, chimneys, ovens, etc.)
- Specially designed as bedding and jointing mortar for refractory tiles and bricks, concrete blocks, terracotta bricks subject to high service temperatures
- Smoothing mortar subjected to high service temperatures

CHARACTERISTICS / ADVANTAGES

- High thermal resistance. It withstands up to 750 °C.
- High early strengths
- Easy to mix
- Easy to apply

PRODUCT INFORMATION

Chemical base	Aluminous cement, selected aggregates and additives	
Packaging	5 kg plastic bags	
Appearance / Colour	Grey powder	
Shelf life	6 months	
Storage conditions	Store properly in undamaged original sealed packaging, in dry cool conditions at temperatures between +5 °C and +35 °C. Protect from the direct sunlight and frost.	
Density	Dry mortar	~1.8 kg/l
	Fresh mortar	~2.0 kg/l
Maximum Grain Size	D _{max} : 2 mm	

TECHNICAL INFORMATION

Compressive Strength	~37 MPa after 24 hours	(EN 196-1)
Tensile Strength in Flexure	~5 MPa after 24 hours	(EN 196-1)

APPLICATION INFORMATION

Mixing ratio	0.55 to 0.65 litres of water for 5 kg of powder
Consumption	This depends on the substrate roughness and thickness of the layer applied. As a guide 1.8 kg of powder per mm thick per m ²
Yield	5 kg of powder yields approximately 2.8 litres of mortar
Layer Thickness	Min. 6 mm / Max. 20 mm
Ambient Air Temperature	+5 °C minimum; +30 °C maximum
Substrate Temperature	+5 °C minimum; +30 °C maximum
Pot Life	~60 minutes at +20 °C

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

The substrate shall be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond between the mortar and the substrate.

MIXING

Sika MonoTop®-100 Fire Resistant can be mixed mechanically or manually. Pour the recommended water into a suitable mixing container. While stirring slowly, add the powder to the water and mix thoroughly at least for 3 minutes to the required consistency.

APPLICATION

Sika MonoTop®-100 Fire Resistant can be applied manually using a spatula or a trowel. Pre-wet the surface with clean water before application. The surface shall not be allowed to dry before application of the refractory mortar. Just prior to application, excess water shall be removed using a clean sponge or clean cloth so the surface shall achieve a dark matt appearance without glistening and surface pores and pits shall not contain water. If used, fire and masonry bricks shall be stored underwater minimum 10 minutes before application. Prior to the application, excess water shall be removed so that the surface shall achieve a dark matt appearance without glistening and surface pores and pits shall not contain water. To apply, press the mortar, exerting a good pressure on the substrate. The surface can be finished according to the requirements using a float or a damp sponge as soon as the mortar has started to stiffen.

CURING TREATMENT

Protect the fresh mortar immediately from premature drying using an appropriate curing method, e.g. moist geotextile membrane, plastic sheet, etc. After hardening lightly spray with water regularly.

CLEANING OF TOOLS

Removal of fresh remnants from tools and application equipment can be carried out using water immediately after use. Hardened / cured material can only be

mechanically removed.

LIMITATIONS

- Wait minimum one week after application before exposing the mortar to high temperature
- When first applying heat on mortar, build temperature up slowly
- Avoid application in direct sun and/or strong wind
- Do not add water over recommended dosage
- Apply only to sound, prepared substrate
- Do not add additional water during the surface finishing as this will cause discolouration and cracking
- Protect freshly applied material from freezing

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control. All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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SikaMonoTop-100FireResistant_en_GR_(05-2017)_2_1.pdf

Product Data Sheet
Sika MonoTop®-100 Fire Resistant
May 2017, Version 02.01
020302050010000083