

PRODUCT DATA SHEET

Sika MonoTop®-620

R3 PORE SEALER AND LEVELLING MORTAR

DESCRIPTION

Sika MonoTop®-620 is a polymer modified surfacing/finishing structural repair mortar, ready to mix, meeting the requirements of class R3 of the EN 1504-3.

USES

Sika MonoTop®-620 can be applied with or without a reinforcement matt, over concrete or mortar surfaces or over SikaTop® or Sika Monotop® mortars.

It is suitable for the following uses:

- Use as a concrete/ mortar pore sealer or levelling mortar
- Thin layer render over vertical or horizontal structural elements
- Repairing of minor defects (pores and honeycombed concrete)
- Restoration of edges and joints
- Suitable for restoration work (Principle 3, method 3.1 and 3.3 of EN 1504-9)

CHARACTERISTICS / ADVANTAGES

- Easy to apply
- Class R3 of EN 1504-3
- Adjustable consistency to improve workability
- Does not require a bonding primer even when manually applied
- Suitable for hand and machine application
- Low shrinkage behavior
- Non-corrosive
- A1 fire rating for the grey type

PRODUCT INFORMATION

Chemical Base	Cement, selected aggregates, silica fume and synthetic resins
Packaging	25 kg bags
Appearance / Colour	Light grey powder
Shelf Life	12 months
Storage Conditions	Store properly in undamaged original sealed packaging, in dry cool conditions
Density	Fresh density of mortar ~2.2 kg/l (at 20 °C)
Maximum Grain Size	D _{max} : 0.7 mm
Soluble Chloride Ion Content	< 0.01 % (EN 1015-17)

TECHNICAL INFORMATION

Compressive Strength	~43 MPa	(EN 12190)	
Modulus of Elasticity in Compression	~22 GPa	(EN 13412)	
Tensile Strength in Flexure	~8 MPa (28 days)	(EN 196-1)	
Restrained Shrinkage / Expansion	Restrained Shrinkage	~2.0 MPa	(EN 12617-4)
	Restrained Expansion	~2.0 MPa	
Tensile Adhesion Strength	~2 MPa	(EN 1542)	
Reaction to Fire	Euro Class A1	Declared	
Capillary Absorption	~0.4 kg.m ⁻² .h ^{-0.5}	(EN 13057)	
Carbonation Resistance	dk= 3.7 mm	(EN 13295)	

SYSTEM INFORMATION

System Structure	Sika MonoTop®-620 is part of the range of Sika mortars complying with the relevant part of European Standard EN 1504 and comprising of:		
	Bonding Primer/ Reinforcement		
	Corrosion Protection		
	Sika Monotop®- 910 S	Normal Use	
	SikaTop® Armatec® 110 EpoCem®	Demanding Requirements	
	Repair Mortar		
	Sika Monotop®- 412, 352, 211 series	Concrete repair mortars	
	Levelling Mortar		
	Sika Monotop®- 620	Normal use	

APPLICATION INFORMATION

Mixing Ratio	~4.0 litres of water for 25 kg bags; 100:16 (powder: water)
Consumption	This depends on the substrate roughness and thickness of layer applied. As a guide, ~17.4 kg of powder per m ² per cm thick
Yield	25 kg of powder yields approximately 14.5 litres of mortar
Layer Thickness	min. 1.5 mm/ max. 5.0 mm
Ambient Air Temperature	+5 °C minimum; +30 °C maximum
Substrate Temperature	+5 °C minimum; +30 °C maximum
Pot Life	~30- 45 minutes at +20 °C

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

The concrete shall be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. De-laminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.

Steel Reinforcement:

Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed. 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 EN 1504-10 for specific requirements.

MIXING

Sika MonoTop®-620 can be mixed with a low speed (<500 rpm) hand drill mixer or for machine application, using a force action mixer 2 to 3 bags or more at once depending the type and size of mixer. Pour the recommended water in 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

Bonding Primer:

On a well prepared and roughened substrate a bonding primer is generally not required for this product. When a bonding primer is required, refer to the **System Information** above for compatible Sika products and refer to the relevant Product Data Sheet for instructions.

Sika MonoTop®-620 can be applied either manually using traditional techniques or mechanically using wet spray equipment. Thoroughly pre-wet the prepared substrate a recommended 2 hours before application. Keep the surface wet and do not allow to dry. Before application remove excess water e.g. with a clean sponge. The surface shall appear a dark matt appearance without glistening and surface pores and pits shall not contain water.

When manually applying the mortar first make a scratch coat by firmly scrapping the repair mortar over the substrate surface to form a thin layer and fill any pores or pits in the surface. The surface can be finished according to the requirements using a float or with a relevant wooden or plastic float or damp sponge.

CURING TREATMENT

Protect the fresh mortar immediately from premature drying using an appropriate curing method e.g. moist geotextile membrane, polythene sheet, etc.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

LIMITATIONS

- Refer to the Method Statement for Concrete Repair using Sika MonoTop® systems for more information or refer to recommendations provided in EN 1504-10
- 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

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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.

LOCAL RESTRICTIONS

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

ECOLOGY

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.