

PRODUCT DATA SHEET

SikaTop®-578 Seal

(formerly MSeal 578)

An elastomeric, highly flexible cementitious waterproof coating for concrete and masonry structures

DESCRIPTION

SikaTop®-578 Seal is a two-component, cement based, flexible coating for waterproofing and protection of concrete and masonry structures.

Component A is a powder blend of Portland cements, selected silica sands and modifying agents. When mixed to a slurry consistency with Component B, liquid, an acrylic polymer emulsion, it can be easily applied by brush or roller.

Suitable for use in hot and tropical climatic conditions.

USES

- Suitable for internal and external applications.
- Waterproofing and protection of terraces, balconies, bathrooms and other wet areas where tiles are to be installed directly on top of the membrane using a proprietary tile adhesive.
- Waterproofing of water retaining and hydraulic structures.
- Flexible protection of concrete structures subject to minor deformation under load.
- Protection of concrete structural elements repaired with products from the SikaEmaco® or Sikadur® ranges against the penetration of carbon dioxide.
- Protection of concrete surfaces from sea-water and deicing salts, chloride attack and carbonation.

CHARACTERISTICS / ADVANTAGES

- High performance: accommodates movement
- Excellent elongation at failure
- Excellent mechanical characteristics
- Easy application due to product's consistency
- Compatible with ceramic, mosaic and natural stone coverings
- Excellent adhesion
- Retains flexibility when submerged
- Flexible under all environmental conditions
- Good chemical resistance against soft water, domestic waste water, manure or other liquids moderately aggressive to mineral substrates

APPROVALS / STANDARDS

SikaTop®-578 Seal meets the requirements defined by EN 1504-9 and EN 1504-2.

PRODUCT INFORMATION

Packaging	Supplied in 30 kg unit	
	Comp. A - Powder	20 kg
	Comp. B - Liquid	10 kg
Appearance / Colour	Grey	
Shelf Life	12 months from date of production	
Storage Conditions	Store in original unopened packaging in a cool and dry condition between +5°C and +35°C. Protect from direct sunlight, heat and moisture. Avoid excessive compaction. Do not stack pallets.	
Density	~1.6 kg/l (fresh mortar at +20°C)	

TECHNICAL INFORMATION

Tensile Adhesion Strength	~0.8 N/mm ² (on concrete surface, at 28 days, +20°C and 50% R.H.) and (Thermal compatibility to freeze/thaw cycles with de-icing salts, measured as Adhesion)		(EN 1504-2 / EN 14891-A.6.2)
	<u>Initial adhesion strength</u>	~1 N/mm ²	(EN 1504-2 / EN 14891-A.6.2)
	<u>Adhesion after application of heat source</u>	~1.3 N/mm ²	(EN 1504-2 / EN 14891-A.6.5)
	<u>Adhesion after freeze-thaw cycles</u>	~0.7 N/mm ²	(EN 1504-2 / EN 14891-A.6.6)
	<u>Adhesion after immersion in basic water</u>	~0.7 N/mm ²	(EN 1504-2 / EN 14891-A.6.9)
Crack Bridging Ability	Static crack-bridging (after 28 days at +20°C and 50% R.H)	Class A5 (> 2.5 mm)	(EN 1504-2 / EN 1062-7)
	Dynamic crack-bridging (at +20°C expressed as resistance to cracking cycles)	class B4.2	
	at +23°C	> 1 mm	(EN 1504-2 / EN 14891-A.8.2)
Resistance to UV Exposure	Resistant (500 hrs)		(ASTM G154-16)

Permeability to Water Vapour	Class 1 (SD < 5) (Equivalent air thickness)	(EN 1504-2 / EN ISO 7783-1)
Water Tightness	1.5 bar - no penetration (for 7 days of positive lift)	(EN 1504-2 / EN 14891-A.7)
Permeability to Carbon Dioxide	> 100 m (diffusion in equivalent air layer thickness CO ₂ (S _D))	(EN 1504-2 / EN 1062-6)
Water permeability	~ 0.05 kg/m ² ·h ^{0.5} (Expressed as capillary absorption)	(EN 1504-2 / EN 1062-3)
Elongation at break	~120 % (after 28 days at +20°C and 50% R.H.)	(ASTM D412)

APPLICATION INFORMATION

Consumption	~1 L / m ² / mm per layer (min. 2 layers recommended) An additional 0.5 kg/m ² is required when embedding approved mesh
Yield	~19 L / 30 kg unit
Ambient Air Temperature	+8°C to +45°C
Pot Life	~60 min. (at 20°C)

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.

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 Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The surface to be coated must be clean and sound. Remove all traces of formwork, release agents, previous coatings, laitance, organic growth and any other contaminants that may affect the bond adversely. Suitable cleaning methods include ultra high-pressure water jetting and grit blasting. Aggressive percussive methods such as scabbling or scarifying are not recommended unless followed by grit blasting, wire brushing or high-pressure water jetting. After the above treatment, surfaces must be thoroughly rinsed with clean potable water to remove all dust and loose particles. Cracks bolt holes and large surface defects must be cut out and filled solid with SikaTop®-590 Seal or one of the SikaEmaco® range of repair material. Small blowholes in the concrete should be filled with a thixotropic mix of SikaTop®-578 Seal Powder with reduced liquid content.

MIXING

SikaTop®-578 Seal is supplied in premeasured units and should be mixed on site utilising clean containers. Slowly add the powder to the liquid and mix, using a slow speed drill fitted with a suitable paddle. MIX AND USE. Do not mix more material than can be used in one hour.

APPLICATION

Apply SikaTop®-578 Seal in two coats at minimum 1 mm thickness per coat. Apply subsequent coats once the initial coat has dried. SikaTop®-578 Seal must be reinforced with mesh across all construction joints and cracks. The reinforcing mesh may be either 100 % polypropylene or an alkali resistant glass-fibre mesh, depending on which particular enhanced tensile properties are required. Please consult your local Sika® Technical Service Representative for further advice on the correct selection of mesh.

CURING TREATMENT

Under hot or excessive drying conditions adequate protective shielding should be foreseen. In cold, humid or unventilated areas it may be necessary to leave the application for a longer curing period. SikaTop®-578 Seal needs to cure under dry-air conditions. Additional heating and/or ventilation can assist proper curing. Do not use dehumidifiers during curing periods.

CLEANING OF TOOLS

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

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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October 2024, Version 03.02
020701000000002036

SikaTop-578Seal-en-HK-(10-2024)-3-2.pdf