

## PRODUCT DATA SHEET

# SikaTop<sup>®</sup>-599 Seal

(formerly MSeal 599)

High range elastomeric (flexible), cementitious waterproof mortar for concrete and masonry

### DESCRIPTION

- SikaTop<sup>®</sup>-599 Seal is a blend of Portland cements, selected silica, micro-fibres and modifying agents. When mixed to a slurry consistency with the acrylic polymer emulsion, it can be easily applied by brush or spray equipment. It cures to give an elastomeric flexible membrane.
- The 2mm thick SikaTop<sup>®</sup>-599 Seal membrane will accommodate movement up to 0.5 mm, or 1.2 mm when reinforced with FIBER mesh.

### USES

SikaTop<sup>®</sup>-599 Seal can be used for waterproofing and protection of surfaces where flexibility is required in order to bridge small cracks. Some of the most common places where it can be used are:

- Tanks, swimming pools, canals or other elements intended to contain water, whether buried or not
- Interior waterproofing of basements
- External waterproofing of underground walls
- Repair and protection of surfaces exposed to the action of frost and de-icing salts: bridges, terraces and roof overhangs, cornices, etc.
- Protection of concrete surfaces in marine environments
- Waterproofing in contact with drinking water
- For waterproofing water-retaining structures which may be subject to movement like water tanks, pools, reservoirs, etc.
- To protect concrete from water, carbonation and de-icing salts.
- Suitable for internal and external use, against positive and negative water pressure.
- Fiber mesh can be used in strip form over joints and cracks or as reinforcement for the whole application.

### PRODUCT INFORMATION

#### Packaging

Ready batched 20.0 kg units:

### CHARACTERISTICS / ADVANTAGES

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- Low modulus of elasticity, thus achieving good flexibility, reducing the risk of cracking and improving the ability to bridge shrinkage cracks and microcracks
- Waterproof and water vapour permeable
- Withstands both positive and negative pressure
- Predosed Excellent adhesion on healthy substrates including concrete, cement mortars, stone, bricks, etc.
- High resistance to de-icing salts and freeze-thaw attack
- Stops the progression of carbonation
- Good crack bridging properties

	Part A (Liquid)	5.0 kg
	Part B (Powder)	15.0 kg
<b>Shelf life</b>	12 months from date of production	
<b>Storage conditions</b>	Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.	
<b>Density</b>		
<b>Maximum grain size</b>	Dmax: ~0.63 mm	

## TECHNICAL INFORMATION

<b>Tensile strength</b>	Tensile @ 28 days	0.9 N/mm <sup>2</sup>
	Adhesion	1.1 N/mm <sup>2</sup>
<b>Permeability to water vapour</b>	Water vapour permeability (µH <sub>2</sub> O) 985	
<b>Water penetration under pressure</b>	Positive Pressure	1.5 bar
	Negative Pressure	1.0 bar

## APPLICATION INFORMATION

<b>Fresh mortar density</b>	~ 1.75 kg/l
<b>Consumption</b>	~1.75 kg/m <sup>2</sup> /mm This figure is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.
<b>Ambient air temperature</b>	+ 5 °C min. / + 35 °C max.
<b>Mixing ratio</b>	Part A : Part B = 1 : 3 (by weight)
<b>Substrate temperature</b>	+ 5 °C min. / + 35 °C max.
<b>Pot Life</b>	~1 hour at +20 °C
<b>Final set time</b>	~2 hour 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.

- When over-coating with solvent paints always carry out preliminary trials to ensure the solvent does not affect the integrity of the waterproofing layer.
- Do not overpaint in basements or other structures where the membrane is subject to negative water pressure.

## USES

- Protect freshly applied material from rain until at least 24–48 hours after application.
- Avoid direct contact with chlorinated swimming pool water.
- The product is not a vapour barrier and may transmit vapour to applied coatings and cause blistering.
- The hardening process is slower when there is a high environmental humidity level, e.g. in closed or inadequately ventilated rooms and basements. Controlled ventilation methods are recommended.
- Avoid application during direct sun and/or strong wind exposure.

## ECOLOGY, HEALTH AND SAFETY

### 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 contaminant that may affect the bond adversely. Suitable cleaning methods include high-pressure water treatment and grit blasting. NOT recommended are aggressive percussive methods such as scabbling. After the above treatment, surfaces must be thoroughly rinsed with clean potable water to remove all dust and loose particles.

For Cracks and bolt holes please consult Sika Solutions technical team for repair advise.

#### MIXING

Important: Do not add any additional water or other constituents.

1. Shake carefully Part. A before mixing.
2. Pour ~½ of Part. A into a suitable mixing container.
3. Add Part. B slowly while mixing with a low speed (~500 rpm) electric single paddle mixer or other suitable equipment until a consistent mix has been achieved.
4. Add the remaining amount of Part. A.
5. Mix thoroughly for at least 3 minutes to achieve a smooth consistent mix.

#### CURING TREATMENT

Under hot or excessive drying conditions adequate protective shielding should be foreseen. In cold and humid areas it may be necessary to leave the application for a longer curing period. SikaTop®-599 Seal needs to dry under air dry circumstances.

#### CLEANING OF EQUIPMENT

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

### 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.

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## 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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#### Product Data Sheet

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