

## SikaTop®-77

Acrylic emulsion and waterproof additive for mortar and concrete

<b>Product Description</b>	SikaTop®-77 is an acrylic emulsion which when added to cement mortar/concrete/grout provides good adhesion, water resistance and improvement of other properties. It is available in form of a milky liquid.
<b>Uses</b>	SikaTop®-77 is a high quality emulsion that substantially increases the quality of cement mortars/concrete/grout for : <ul style="list-style-type: none"><li>■ Rendering and coating</li><li>■ Jointing</li><li>■ Repair and adhesive mortar</li><li>■ Roof finishing</li><li>■ Bonding of concrete casts</li><li>■ Tiling</li><li>■ Waterproof rendering</li><li>■ Cement injection mix.</li></ul>
<b>Characteristics / Advantages</b>	SikaTop®- 77 provides the following properties : <ul style="list-style-type: none"><li>■ Extremely good adhesion</li><li>■ Reduced shrinkage</li><li>■ Greater elasticity</li><li>■ Excellent oil and water resistance</li><li>■ Increased abrasion resistance</li><li>■ Improved chemical resistance</li></ul>
<b>Product Data</b>	
<b>Form</b>	
<b>Appearance / Colour</b>	White liquid
<b>Packaging</b>	20 kg container
<b>Storage</b>	
<b>Storage Conditions / Shelf Life</b>	12 months from date of production if stored in undamaged and unopened, original sealed packaging, in dry conditions and protected from direct sunlight. Protect from frost.
<b>Technical Data</b>	
<b>Chemical Base</b>	Acrylic dispersion
<b>Density</b>	~ 1.03 kg/l at 27 °C
<b>Solid Content</b>	~ 40%



pH	>7				
Compressive Strength (MPa)	SikaTop®-77 by weight of cement				(According to ASTM C 109)
	Curing time	Control	5%	10%	15%
	7 days	~30 N/mm²	~20 N/mm²	~25 N/mm²	~29 N/mm²
	28 days	~50 N/mm²	~35 N/mm²	~38 N/mm²	~44 N/mm²
Flextural strength (MPa)	SikaTop®-77 by weight of cement				(According to ASTM C 293 – 79)
	Curing time	Control	5%	10%	15%
	7 days	~7 N/mm²	~8 N/mm²	~8.5 N/mm²	~8.9 N/mm²
	28 days	~9.5 N/mm²	~10 N/mm²	~10.8 N/mm²	~11.8 N/mm²
Water absorption	SikaTop®-77 by weight of cement				
	Control	5%	10%	15%	
	~5.90%	~2.9%	~2.0%	~1.60%	
Substrate Temperature	+15°C min. / +40°C max.				
Ambient Temperature	+15°C min. / +40°C max.				
System Information					
Application Details					
Consumption					
Substrate Quality	Concrete surfaces should be sound and clean, free from oil, grease, cement laitance and loosely adhering particles.				
Substrate Preparation	Absorbent surfaces should be saturated thoroughly with water but without showing any puddle on their surfaces.				
Application Instructions					
Mixing	Mixing of diluted SikaTop®-77 to cement mortar / concrete should preferably be done manually. When a concrete mixer is used, pour the mortar as soon as its consistency is cohesive. Do not run the mixer too long.				
Aggregates	Aggregates used in the mortar / concrete should be well graded and thoroughly washed. Sand particles sizes should correspond to the thickness of mortar to be applied.				
	Thickness of mortar		Particle Size		
	5 mm		0 – 2 mm		
	6 – 15 mm		0 – 3 mm		
	over 15 mm		0 – 5 mm		
Application Method / Tools	Bond Coating				
	Prepare the base as indicated above. Apply cement based primer by using SikaTop®-77: Water = 1: 4 by volume in order to obtain a thin layer.				
	When the primer coat is still fresh and sticky apply mortar made out of SikaTop®-77 and water combination.				
	Masonry Jointing				
	Prepare the base as indicated above. Make a firm mortar with fine sand and cement using SikaTop®-77: Water = 1: 8. Impregnate the area with primer coat as above. While the primer is wet, apply the mortar and immediately finish or reshape the surface as required.				
Waterproof Plaster					



Dilute SikaTop®-77 with water in the proportion of 1: 6 by volume. Prepare the mortar with this gauging mortar. Cured Plaster with SikaTop®-77 would harden faster and would be watertight.

#### Bonding Successive Concrete Casts

Wash the surface with high-pressure jet. Prepare a pasty mortar with SikaTop®-77: Water = 1: 8 by volume. Apply this mortar onto the surface in a layer of 23 – 30 mm thickness. Pour fresh concrete after about an hour. Vibrate carefully to achieve satisfactory interpenetration of mortar and concrete.

#### Polymer Modified Cement Grout for Injection

Open the crack lines into V and U groove and fix galvanised iron nozzles spaced at regular intervals of 0.5 to 1.5 mm c/c along groove length with Sika®-2, Sika®-4a mortar or Sikadur®-31. Prepare a cement grout slurry admixed with SikaTop®-77 at dilution rate of 1: 4 to 1: 8 by volume with water. Inject the fluid as per normal practice.

#### Cleaning of Tools

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

#### Curing Treatment

Ensure that freshly applied mortars, renders, floor toppings, etc., are adequately protected from the drying effect of wind, sun and high temperatures. Adopt a curing regime appropriate to the application such as water mist, wet hessian, plastic sheeting, curing membranes.

#### Value Base

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.

#### Health and Safety Information

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 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.