

PRODUCT DATA SHEET

SikaTop®-107 Protection T

PRE-DOSED "FLEXIBLE" HYDRAULIC MICRO-MORTAR FOR PROTECTING AND WATERPROOFING CONCRETE

DESCRIPTION

Hydraulic micro-mortar in a two-component pre-dosed kit. After mixing, we obtain a mortar that can be applied with a roller, brush or sprayed.

USES

1. Protection of concrete structures :

SikaTop®-107 Protection T helps meet the requirements of the NF EN 1504-9 standard in the following cases of protection:

- Protection against risks of penetration (Principle 1, method 1.3).
- Humidity control (Principle 2, method 2.3).
- Increasing the resistivity of concrete (Principle 8, method 8.3).
- Protecting concrete against atmospheric aggressions, carbonation and aggressive substances (clean water, selenitic water, etc.): preferably use grey SikaTop®-107 Protection T.
- Protecting mortar and concrete against freezing and de-icing salts (gutters, pavements, ledges, corbels, road slabs, parapets)..
- Protecting the underside of a bridge and in the presence of humidity (condensation). Protective coating applied after repairing the concrete using SikaTop®, Sika® MonoTop® (consult the technical data sheet of selected product)..

2. Waterproof coating :

- Lining of basins, tanks, reservoirs, waste water treatment plants and other hydraulic structures (CCT 33).
- Additional waterproofing of house plinths:
 - Outdoor: external walls of cellars before filling.
 - Indoor: cellar walls, garages, underground rooms.
- Waterproofing under tiles :
 - Showers, laundry rooms, kitchens, balconies, fountains ...
 - Intermediate floors.

FEATURES

- "Flexible" compared to standard mortar.
- Protects oncrete from carbonation (2mm of SikaTop®-107 Protection T is equivalent to 20 mm of traditional protection mortar).
- Water vapour permeable: excellent supplementary waterproofing for all hydraulic structures.
- Good adhesion on concrete, mortar, stone, brick.
- Good resistance to abrasion and erosion.
- High resistance to freezing and de-icing salts.
- Easy to use: pre-dosed product.
- Can be applied on humid substrates.

PRODUCT INFORMATION

Composition	<ul style="list-style-type: none"> ▪ Component A: synthetic emulsion resin ▪ Component B: cement and special fillers
Packaging	20 kg pre-dosed kit consisting of: <ul style="list-style-type: none"> ▪ Component A: 5 kg drum ▪ Component B: 15 kg bag
Shelf life	12 months intact in its unopened original packaging
Storage conditions	Sheltered from frost and humidity.
Appearance and colour	Available in grey and white
Maximum grain size	0 / 0,5 mm
Density	About 2 kg/l at +20 °C

TECHNICAL INFORMATION

Crack bridging ability	Resistance to cracking (P 84-402) (indicative values):			
	Elongation due to coating failure			
	Products	28 days 23°C, 50% RH	After 3 months of immersion in wa- ter at 23°C	After 3 months of immersion in wa- ter at 5°C
	SikaTop®-107 Protection T	0,6 mm	0,5 mm	0,5 mm
	SikaTop®-107 Protection T rein- forced with Sika® Toile 75	0,9 mm	0,6 mm	-
	Resistance to cracking (P 84-402), after artificial ageing by 75 climate cycles (indicative values):			
	Elongation due to coating failure			
	Temperature	+ 23°C	- 10°C	
	SikaTop®-107 Protec- tion T reinforced with Sika® Toile 75	0,7 mm	0,7 mm	
Tensile adhesion strength			Adhesion at 28 days	
	SikaTop®-107 Protection T grey		Greater or equal to 1 Mpa	
	SikaTop®-107 Protection T white		Greater or equal to 1 Mpa	
Capillary absorption	0.06 Kg/m ² h ^{0.5} EN 1062-3			
Water penetration under pressure	No passing of water under 1 MPa.			
Water penetration under negative pres- sure	No passing water under 1 MPa. Reminder : 1 MPa is equivalent to a 100 m column of water.			
Permeability to water vapour	SD < 1 m.			
Equivalent air layer thickness for water vapour	Equivalent air layer Sd, H2O =0,08 m (according to EN ISO 7783-1 et -2) Requirement for water vapour diffusion resistance : Sd < 5 m Class I vapour-permeable coating according to EN 1504-2 requirement			
Carbonation resistance	Equivalent air layer SD, CO2 = 85 m (according to EN 1062-6) Requirement for the protection against carbonation: SD > 50 m (EN 1504-2 standard) A minimum thickness of 2 mm is necessary to attain the require- ment of 50 m of protection.			

APPLICATION INFORMATION

Mixing ratio	Component A / Component B = 1/ 3 by weight. See § Preparing the mixture						
Consumption	3 to 4 kg/m ² for two layers (For a thickness of 1.5 to 2mm).						
Layer thickness	Approximately 0,8 to 1,0 mm						
Ambient air temperature	+ 5 min / + 35°C max						
Substrate temperature	+ 5°C min. / + 30°C max. In case of high heat, avoid direct sunlight on the substrate.						
Pot Life	30 to 40 min at + 20°C						
Final set time	The waiting time before putting back in water (structures storing water) is linked to the temperature As a rough guide : <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">at + 5°C</th> <th style="text-align: left;">at + 20°C</th> <th style="text-align: left;">at + 30°C</th> </tr> </thead> <tbody> <tr> <td>10 days</td> <td>7 days</td> <td>5 days</td> </tr> </tbody> </table>	at + 5°C	at + 20°C	at + 30°C	10 days	7 days	5 days
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10 days	7 days	5 days					
Waiting time to overcoating	Between two coats: 2 to 6 hours, depending on the temperature						

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

- SikaTop®-107 Protection T must not be used when water is used for human consumption. Use SikaTop®-209 Réservoir instead.
- Like all hydraulic mortar, SikaTop®-107 Protection T must be protected from frost, wind and sunlight during curing and hardening.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

Refer to CCT 33 for application details

EQUIPMENT

The application can be done with a brush, roller, trowel or by spraying.

SUBSTRATE QUALITY / PRE-TREATMENT

The substrates must be clean, dust free, clear of all non adhering parts, free from oil and grease. The concrete substrates must be cured for more than 28 days and have a superficial cohesion of at least 1 MPa. Mechanical preparation (sanding or stripping), in order to remove all traces of form oil, old coating or laitance, non adhering parts or parts that could be prejudicial to adhesion. The substrate is moistened a day before application. It is moistened again on the

day of application. However, make sure that it is not sweating and free from any film of water during the application of SikaTop®-107 Protection T.

MIXING

Pour the entire quantity of component A (emulsion resin) in a clean container with a large opening (bucket, completely open drum). Progressively add the entire component B (powder) while mixing with an electric mixer for 2 to 3 minutes until a mortar free from lumps and of even colour is obtained. Preparing the mixture with slow speed mixer (300 rpm) equipped with a helix of 10 to 15 cm diameter.

APPLICATION

A minimum of two coats are necessary when used in addition to waterproofing. The finishing can be done by smoothing with a brush. To interlace possible micro cracks on the substrate and improve the resistance of the coating to cracks and checking, it is possible to use Sika® Toile 75, glass frame treated with anti-alkali, to mask in the first coat of SikaTop®-107 Protection T.).

CLEANING OF EQUIPMENT

With water before the mortar hardens .

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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.

