

PRODUCT DATA SHEET

SikaTop[®]-560 Seal

(formerly MSeal 560)

Two component elastic and fast-curing lightweight membrane for waterproofing and concrete protection, available in light grey and white colour.

DESCRIPTION

SikaTop[®]-560 Seal is a two component, cement-based, elastic and flexible lightweight membrane for waterproofing and concrete protection.

SikaTop[®]-560 Seal allows early serviceability of the concrete structures, water tanks can be filled after only 24 hours. SikaTop[®]-560 Seal provides durable waterproofing and protection even down to -20°C.

SikaTop[®]-560 Seal is composed of specially selected cements, lightweight fillers, sand and special polymers dispersions.

USES

- For interior and exterior application.
- As a waterproof lining for water retaining structures.
- To provide foundation protection.
- To protect concrete surfaces from carbonation and chloride attack.
- For areas constantly submerged in water.
- Can be used in contact with drinking water (check local regulations)

Contact your local Sika representative regarding any application required not mentioned here.

FEATURES

- Static and dynamic crack bridging properties down to -20°C.
- Low density / lightweight formulation: low consumption providing high yield (up to 40% more yield compared to ordinary waterproofing membranes) and time saving in application.
- Rapid curing: allows early serviceability. Tanks can be filled after only 1 day (24 hours at 23°C).
- Waterproof: resistant to 3 bars (30 meter) of positive water pressure.
- Excellent adhesion.
- Elasticity maintained in immersion in water.
- Water vapor permeable.
- High resistance to carbon dioxide diffusion. Protects concrete from rebar corrosion.
- Reduces the diffusion of chloride ions in concrete by up to 75%.
- Sulphate resistant.
- Reduced ammonia smell: can be applied in closed spaces.
- Available in light grey and white: applying a coat of paint for aesthetic reasons is not necessary.
- UV resistant: can be used as final coating in exterior applications.
- Contributes to LEED credits.
- Approved for use in contact with drinking water

CERTIFICATES AND TEST REPORTS

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating
- BELGAQUA

PRODUCT INFORMATION

Composition	Part A: Portland cement, selected aggregates, recycled material and admixture Part B: Liquid polymer and additive
Packaging	Part A: 19 kg bag Part B: 10 kg jerrycan
Appearance and colour	Part A: grey powder Part B: white liquid Mixed product: Light grey and white
Shelf life	12 months from date of production if stored properly in undamaged and unopened original sealed packaging in dry and cool conditions
Storage conditions	Store properly in undamaged and unopened original packaging in cool and dry conditions. Liquid component must be protected from frost. Protect from moisture and weather inclemencies
Density	~ 1,25 kg/l

TECHNICAL INFORMATION

Resistance to impact	Class III	(EN ISO 6272-1)
Tensile adhesion strength	~1,5 N/mm ²	(EN 1542)
Crack bridging ability	Static crack bridging: ▪ Class A4 (20 °C) ▪ Class A3 (-10 °C) ▪ Class A3 (-20 °C) Dynamic crack bridging: ▪ Class B3.1 (20 °C) ▪ Class B3.1 (-20 °C)	(EN 1062-7)
Reaction to fire	Class E _{fl}	(EN 13501-1)
Freeze thaw de-icing salt resistance	≥ 0,8 N/mm ²	(EN 13687-1/2)
Behaviour after artificial weathering	After 2000 hrs, no blistering, cracking or flaking. Slight color change.	(EN 1062-11)
Permeability to water vapour	Class I (permeable) S _D < 5 m	(EN ISO 7783-1/2)
Capillary absorption	w < 0,1 kg/m ² h ^{0.5}	EN 1062-3
Water penetration under pressure	Up to 3 bar (2 mm thickness)	(EN 12390-8)
Permeability to carbon dioxide	S _D : 182 m (S _D > 50m)	(EN 1062-6)

APPLICATION INFORMATION

Consumption	~ 1,25 kg/m ² /mm of mixed product. Consumption is influenced by the roughness of the substrate. On rough substrates the quantities required will increase significantly. In these cases, to obtain real consumption calculation based on in-situ tests might be required.
Layer thickness	For waterproofing minimum total thickness is 2 mm.
Material temperature	+5 °C min. / +35 °C max.
Ambient air temperature	+5 °C min. / +35 °C max.

Substrate temperature	+5 °C min. / +35 °C max.
Pot Life	~ 45 minutes at 20 °C ambient and substrate temperature. ~ 30 minutes at 30 °C ambient and substrate temperature.
Waiting time	Exposure to water pressure / mechanical loads after 3 days.

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.

IMPORTANT CONSIDERATIONS

- Do not apply at temperatures below +5°C nor above +35°C.
- Do not apply SikaTop®-560 Seal to frozen substrates or if the ambient temperature is below +5°C or expected to fall below +5°C within 24 hours.
- Do not mix with cement, sand or other materials that can alter product performance.
- DO NOT RETEMPER SikaTop®-560 Seal BY ADDING WATER.
- Before applying SikaTop®-560 Seal in contact to drinking water, check local regulations.

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

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The concrete "pull off" (tensile adhesive) strength must be > 1.0 N/mm²

SUBSTRATE PREPARATION

Remove deteriorated concrete by mechanical means, sandblasting or pressurized water, until a healthy, cohesive substrate is obtained. The substrate must be sound, clean, free of grease, oil, friable parts, laitance. Plug active leaks with Sika MonoTop®-108 WaterPlug. Before applying SikaTop®-560 Seal, the substrate must be moistened until saturated without flooding it.

MIXING

SikaTop®-560 Seal consists of 2 components that are supplied in working packs which are pre-packaged the exact mixing ratio.

Pour the entire contents of Parts B (liquid) into a clean pail and add Part A (powder). Mix with a paddle mixer attachment in a slow-speed drill (400– 600 rpm). Mix until a homogeneous and lumpfree consistency is obtained. Leave SikaTop®-560 Seal to stand for 1 – 2 minutes to allow full saturation to take place and then remix briefly.

Do not mix more material than the quantity which can

be used in 40 minutes.

APPLICATION

SikaTop®-560 Seal can be applied with spray equipment, by brush or by trowel.

Always apply the mix to a pre-dampened surface. High suction substrates require more dampening than dense substrates. However, make sure there is no freestanding water.

FIRST COAT

Apply SikaTop®-560 Seal on the substrate while still wet, to ensure an intimate bond to the substrate. Care must be taken not to spread the material too thinly.

When the material begins to drag or "ball", do not add more water, but dampen the substrate again.

Allow at least 30 minutes (can be up to 2 hours, depending on application conditions) to cure before applying a second coat.

SECOND COAT

Dampen the first coat and remove excess moisture. Then apply the second coat.

CURING TREATMENT

In warm or windy conditions protect from dehydration. In cold conditions cover with insulating material. Protect surfaces against frost and rain until the product has fully cured. SikaTop®-560 Seal needs to cure for at least 7 days at 21°C and relative humidity of max 80%. In cold, humid or unventilated areas, the curing period will be longer and it is necessary to introduce forced air movement to avoid condensation. The after treatment should take place as soon as possible, at the latest when the material starts to set. The after treatment should last at least 3 days.

Additional heating and ventilation can assist proper curing. Never use dehumidifiers within 28 days after application.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with clean water immediately after use.

Hardened / cured material can only be removed mechanically.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S,

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