

PRODUCT DATA SHEET

SikaTop[®]-588 Seal

(formerly MSeal 588)

Elastomeric waterproof coating for concrete and masonry in water retaining structures subject to movement

PRODUCT DESCRIPTION

SikaTop[®]-588 Seal powder and liquid when mixed forms a brushable waterproof slurry, which cures to a flexible elastomeric membrane. It is applied to a minimum 2 mm thickness in two coats by stiff brush, broom or spray.

USES

- Water retaining structures which may be subject to movement.
- As part of the basement waterproofing system, in areas sensitive to movement, vibration and settlement
- To protect concrete from water of low pH or soft quality, carbonation and de-icing salts
- Suitable for internal and external use, against positive and negative water pressure
- As a resilient coating to protect concrete on bridge parapets, columns, piers, on land and in marine environments
- Waterproofing of new structures where movement is expected from drying shrinkage.

Note: SikaTop[®]-588 Seal is not suitable for prolonged contact with hydrocarbons such as petrol, fuel oil, etc.

CHARACTERISTICS / ADVANTAGES

- Regulation 31 approved for use in contact with potable water
- Retains flexibility when submerged
- Good chemical resistance against soft water, domestic and sewage wastewater and other liquids moderately aggressive to mineral substrates

- Resistant to occasional foot traffic
- 2mm of cured coating equivalent to 500mm of concrete cover
- Freeze/thaw resistant
- Water vapour permeable
- Ammonia free can be applied in enclosed spaces
- Non-solvented – safe to handle and use, environmentally friendly

APPROVALS / STANDARDS

- Approved for use in contact with potable water under:
- Regulation 31(4) (a) of the water supply (water quality) regulation 2016 for England and 2018 for Wales.
- Approved by Energy and Climate Change Directorate Drinking Water Quality Division, under Water Supply (Water Quality) (Scotland) Regulations 2014, 33(3) (a).
- Approved by the Department of Agriculture, Environment and Rural Affairs under Regulation 30 of the Water Supply (Water Quality) Regulations (Northern Ireland) 2017.

IMPORTANT NOTE

- **Specific instructions for use (IFU) for potable water applications must be followed and are available upon request.**
- **For all other applications follow the guidance within this technical data sheet.**

PRODUCT INFORMATION

Product Declaration	Blend of Portland cements, selected silica sands and modifying agents.		
Chemical Base	Component A: Powder Component B: Liquid		
Packaging	Supplied in 35 kg unit:		
	Comp. A	25 kg	
	Comp. B	10 kg	
Shelf Life	12 months from date of production if stored properly in undamaged and original sealed packaging.		
Storage Conditions	Store in original unopened packaging in a cool and dry condition between +5 °C and +30 °C. Protect from direct sunlight, heat and moisture. Avoid excessive compaction.		
Appearance / Colour	Available in Grey and White		
Maximum Grain Size	0.6 mm		
Density	~ 1.68 kg/L (fresh mortar at +20°C)		
Crack Bridging Ability	Static crack bridging properties	Layer thickness ≥ 2mm	23 °C Class A4 -30 °C Class A2 (EN 1062-7)
	Dynamic crack bridging properties	Layer thickness ≥ 2mm	23 °C Class B3.1 -30 °C Class B2
Tensile adhesion strength	(28 days) - >0.81 to 0.9 N/mm ²		(EN 1542)
Elongation at break	Ambient	23.4 %	(EN ISO 527-1)
	Under water	16.2 %	
Capillary Absorption	(Water absorption) ≤ 0.1 kg/m ² x h ^{-0.5}		(EN 1062-3)
Water Tightness	Positive side waterproofing - 1.5 bar Negative side waterproofing - 1.0 bar		
Permeability to Water Vapour	(2.6 mm layer thickness) 1450 μ		(EN ISO 7783-1)
Permeability to CO2	μCO ₂ 75,000 SD 150 m		(EN 1062-6)
Chemical Resistance	Class II		(EN 13529)
Freeze thaw resistance	(No scaling after 50 cycles) 1.05 N/mm ²		(EN 13687-1)

APPLICATION INFORMATION

Consumption	21 m ² per pack in one coat at 1mm thickness. Apply two coats.
Yield	~ 21 L / 35 kg unit
Layer Thickness	Total application thickness in two coats - 2mm
Mixing Ratio	(25 kg Powder + 10 kg Liquid, mix ratio 1:1)
Substrate Temperature	Application temperature (substrate and material) - from +5°C to +30°C
Pot Life	Within 60 minutes (+20°C)
Curing Time	~ 360 min

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.

LIMITATIONS

If SikaTop®-588 Seal is used to waterproof fish tanks, it should be washed down after curing is complete with salt water and rinsed with clean water. Repeat the rinsing until the required pH conditions are obtained. Failure to do this and to monitor the pH of the water until stable can lead to the death of fish.

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

SUBSTRATE QUALITY

Substrates to be treated must be completely clean, structurally sound and mechanically keyed. All surface coatings, defective renders, foreign matter, formwork treatments and other contaminants that may affect the bond adversely should be removed

SUBSTRATE PREPARATION

Substrates should be prepared by abrasive blasting, high-pressure water treatment or mechanically abrading the surface to achieve the required key.

All mortar joints to be flush pointed.

Repair with Sika-4A and/or SikaTop®-586 Seal as required.

All wall/floor intersections to be prepared by cutting a 20mm-by-20mm chase along the junctions and filling with Sika-4A, finishing in an angle fillet to "round out" the junction.

Water infiltration through the substrate to be treated should be either diverted by drainage or concentrated at weepholes, which will be plugged with Sika-4A after the application of the final coat of SikaTop®-588 Seal. Basements in areas containing high levels of soil or ground water sulphates may require a pre-treatment render. Consult the technical department for details.

MIXING

Liquid content

10 litres of SikaTop®-588 Seal liquid per 25 kg bag of SikaTop®-588 Seal powder.

Mechanical Mixing

Provide adequate ventilation when mixing and applying SikaTop®-588 Seal powder and liquid.

Blend the powder into the mixing liquid. Use a suit-

able mixing paddle in a slow speed drill (400 - 600rpm). Mix until a lump-free, slightly viscous slurry is obtained. This should be achieved 2 minutes after the addition of all the powder component. Do not over mix.

Mixed material must be used within 60 minutes from the completion of mixing, or less under hot weather conditions.

Do not re-temper the mix.

APPLICATION

Note: Do not apply to frozen substrates or if the ambient temperature exceeds 30°C or is below 5°C or expected to fall below 5°C within 24 hours.

Always apply the mix to a pre-dampened substrate. High-suction substrates require more dampening than dense substrates. Ensure there is no free-standing water on the substrate prior to application. The nominal thickness per coat must be between 1.0 and 1.5mm.

APPLICATION METHOD / TOOLS

SikaTop®-588 Seal can be applied by *brush, broom or spray. SikaTop®-588 Seal must not be applied by trowel.

* A suitable brush will be 6" (150mm) in width and have a short pile comprising stiff nylon bristles of 3" (80mm) in length.

First coat

Apply a first coat of SikaTop®-588 Seal at a minimum thickness of 1 mm by brush, broom or spray.

Allow at least 6 hours curing time before applying a second coat. This time will be dependent on ambient temperature, humidity and air movement. Apply the second coat when the first coat is touch dry and sound enough to receive it without damage.

Second coat

Dampen the first coat and remove excess moisture.

Brush, broom or spray the second coat of SikaTop®-588 Seal at a minimum thickness of 1mm, onto the substrate (as above) and finish at right angles to the previous coat.

To aid proper coverage the second coat should be a different colour, for example, white on grey.

If the second coat is to be the final finish, it may be finished with a brush or sponge float to give a uniform surface.

Spray Application

For large surface areas, SikaTop®-588 Seal can be sprayed, achieving substantial time saving against hand application. Use a spray machine and all associated ancillary equipment to suit application volumes. When applying by spray use a 3-4mm nozzle at a pressure of 3.6 - 5.0 bar (50-70lb/in²).

CURING TREATMENT

Damp cure for 24 hours after which time the SikaTop®-588 Seal must be allowed to air dry. In cold, humid, or unventilated areas it may be necessary to leave the application for a longer curing period or to introduce forced air movement. NEVER use dehumidifiers during curing periods.

CLEANING OF TOOLS

Tools, equipment, and spillages should be cleaned immediately with clean water.

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.

CONTACT DETAILS

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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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