

**Product Data Sheet**  
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Sika®-1

## Sika®-1

### Normal setting waterproofing compound for mortar and concrete

<b>Product Description</b>	A liquid ready to use waterproofing compound which reacts with the constituents of a sand-cement mix to block capillaries and pores in concrete. Whilst effectively blocking the passage of water, the substrate still continues to breathe. Chloride free. Sika®-1 is part of a range of internationally used, normal and quick setting waterproofing admixtures.
<b>Uses</b>	Sika®-1 is the basis for the Sika-Render system which is completely suitable for the waterproofing of masonry and concrete structures such as: <ul style="list-style-type: none"><li>n Tunnels</li><li>n Basements</li><li>n Culverts</li><li>n Canals</li><li>n Water-tanks</li><li>n Inspection chambers</li><li>n Manholes</li><li>n Swimming pools</li></ul> Sika® renders are applied in two, three or four coats depending on the level of water pressure and type of structure. In most cases a three coat system is used.
<b>Characteristics / Advantages</b>	<ul style="list-style-type: none"><li>n Ready and easy to use</li><li>n Economical waterproofing product</li><li>n Does not affect the setting behaviour and final strength of the mortar</li></ul>
<b>Product Data</b>	
<b>Form</b>	
<b>Appearance / Colours</b>	Liquid, yellow
<b>Packaging</b>	6 and 30 kg plastic pails, 200 kg drums
<b>Storage</b>	
<b>Storage Conditions / Shelf-Life</b>	24 months from date of production if stored in undamaged and unopened original sealed containers, in dry conditions and protected from frost at temperatures between +5°C and +35°C.
<b>Technical Data</b>	
<b>Chemical Base</b>	Inorganic constituents and silicate mixture
<b>Density</b>	1,015 – 1,055 kg/l
<b>pH value</b>	~ 10±1



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## System Information

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### Application Details

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**Consumption / Dosage** Sika®-1 is added to the clean mixing water. The normal ratio of Sika®-1 to water is 1:10, which is equivalent to approximately 3% of binder content. When using very wet sand, the ratio must be increased to 1:8 or in extreme cases 1:6.

**Substrate Quality / Preparation** Concrete surfaces must be 100% roughened by either hacking, wire brushing, sandblasting, etc. Fixtures, fittings and other protrusions must be removed. Cracks, porous areas and spalling should be cut out and made good. Water infiltration should be stopped with Sika®-4a or the water table lowered. Prior to the first coat, apply a primer-slurry (water, Sika®Latex, sand, cement).

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### Application Conditions / Limitations

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### Application Instructions

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**Mixing** Shake the product before use. Dilute one part Sika®-1 with 10 parts clean water, in a clean container, and stir well. This is best carried out by first mixing equal volume of Sika®-1 and water and then adding the remaining water.

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### Application Method

**Walls:**

After mixing to a sloppy consistency each coat is applied to a thickness of 6 mm by steel trowel. The second coat is best applied when the first coat has begun to stiffen (usually 4-5 hours). After the second coat has been applied and also after the third in the case of four coat renders, apply a 'splatter' coat of the same mortar but mixed with plain water. This will provide a key for the final coat.

Intermediate coats should not be scratched to form a key.

The final coat should be finished with wooden float to avoid unnecessary laitance.

**First coat (1 : 1):**

Dry mix by volume, equal parts of cement:sand and pass through a 3 mm sieve. Add Sika®-1 mixtures.

**Second coat (1 : 1,5):**

Dry mix at the ratio of 1:1.5 cement: sand, by volume before passing through a 3 mm sieve. Add Sika®-1 mixtures.

**Third coat (1 : 2,5):**

Dry mix at the cement : sand ratio of 1:2.5 add Sika®-1 mixtures.

**Finishing coat (1 : 1) (after second or third coat):**

Dry mix cement : sand 1 : 1 by volume, without Sika®-1. Mortar finished with wooden float.

For best results, cement should be fresh Portland cement. Sand should be sharp, clean and graded 0 -3 mm. Soft and rounded sands are unsuitable.

**Floors:**

Normally carried out in two coats with the addition of a primer (water, Sika® Latex, sand or cement) brushed well in the surface and followed by:

**Bonding coat (1 : 1):**

Dry mixed cement, sand with Sika®-1 mixtures added to form a plastic consistency.

**Main floor coat (1 : 2,5):**

Lay semi-dry to a thickness of not less than 28 mm onto the still wet bonding coat and tamped vigorously until moisture rises to the surface. Finish with wooden float.

**Notes on Application / Limitations****Joints:**

Careful attention should be paid to all joints. Each coat must be stepped back 100 mm from the previous coat.

**Angles:**

The first and second coat of the wall render are carried down and onto the floor by 200 mm and 100 mm respectively and then treated in the normal way as joints. Corner fillet: Sika®-1 mortar 1 : 1.

**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.

**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.

**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.



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