

# PRODUCT DATA SHEET

## Sika<sup>®</sup>-1 WT

### Pore Blocking Waterproofing Admixture For Concrete

#### DESCRIPTION

Sika<sup>®</sup>-1 WT is a normal setting waterproofing admixture whose action is to block the capillaries and pores in concrete and mortar. Although blocking the passage of water it allows breathing to take place so considerably reducing the possibility of condensation. Suitable for use in hot and tropical climatic conditions.

#### USES

Sika<sup>®</sup>-1 WT is the basis of the internationally known Sika Structural Waterproofing System which is completely suited to most types of concrete structures subjected to water pressure and dampness from internal or external sources. Sika<sup>®</sup>-1 WT is used for:

- Water retaining structures
- Concrete slabs and foundations.
- Concrete swimming pools
- Concrete water tanks
- Reservoirs
- Lift pits
- Concrete basements and car parking partially or fully underground.
- Below ground concrete structures

#### PRODUCT INFORMATION

<b>Composition</b>	Aqueous solution of complex colloidal silicates
<b>Packaging</b>	20 L pails, 200 L drums and 1000 L flowbins
<b>Shelf life</b>	12 months from date of production if stored properly
<b>Storage conditions</b>	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5°C and +45°C. Protect from direct sunlight and frost
<b>Appearance and colour</b>	White liquid
<b>Density</b>	~1.02 kg/l (+25 °C)
<b>Total chloride ion content</b>	Nil (EN 934-2)

#### FEATURES

Sika<sup>®</sup>-1 WT waterproof admixture in concrete has the following advantages:

- Improves concrete water impermeability
- Improvement in concrete durability
- Prevents ingress of sulfate and carbonation
- Reduces efflorescence on hardened concrete surfaces
- Reduces leaching
- Improves watertight concrete structures that are exposed to positive or negative water pressure

#### CERTIFICATES AND TEST REPORTS

Sika<sup>®</sup>-1 WT follows the requirements of EN 934-2

## TECHNICAL INFORMATION

<b>Concreting guidance</b>	The standard rules of good concreting practice for production and placing must be observed when using Sika®-1 WT in concrete. Refer to relevant standards. Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage. Use Sika® Antisol® products as a curing agent or apply wet hessian.
<b>Concrete mix design</b>	The concrete should contain a minimum cement content of 350 kg/m <sup>3</sup> and a w/c ratio of < 0.45.

## APPLICATION INFORMATION

<b>Recommended dosage</b>	The standard dosage of Sika®-1 WT in concrete is 9 l/m <sup>3</sup> . Sika®-1 WT can be used in conjunction with selected Plastiment®, Sikament®, SikaPlast® and Sika® ViscoCrete® plasticising admixtures, the Sika®-1 WT being added separately to the mix at a rate of 7 l/m <sup>3</sup> . Trial mixes must be performed to establish the exact dosage rate required of the plasticising admixture being used.
<b>Dispensing</b>	Sika®-1 WT is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant. Do not add Sika®-1 WT directly to the dry mix. For optimum utilization of its high water reduction property we recommend thorough mixing at a minimal wet mixing time of 60 seconds. The addition of the remaining gauging water (to fine tune concrete consistency) may only be started after two-thirds of the wet mixing time to avoid surplus water in the concrete.
<b>Compatibility</b>	Sika®-1 WT may be combined with all types of Portland cement and the following Sika products: SikaPump® Sika® FerroGard®-901 SikaFume® SikaFiber® Sika® Aer Sika® Stabilizer Sika®-1 WT is compatible with other Sika admixtures such as Plastiment®, Sikament®, SikaPlast® and Sika® ViscoCrete® We recommend to perform trial mixes to establish the required performance when combined with the above products. Please consult our Sika Technical Department.

## 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

When using Sika®-1 WT a suitable mix design must be selected and local material sources should be trialed. Sika®-1 WT must not be added to dry cement. Before pouring, suitability tests on the fresh concrete must be carried out due to the extended workability, take special care that formwork is properly installed and secured.

When using Sika®-1 WT a mix design must be selected for the local material sources used and trial mixes performed to verify suitability.

If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing.

Sika®-1 WT should not be added to dry cement.

Before pouring, suitability tests on the fresh concrete must be carried out. Due to the extended workability take special care that formwork is properly installed and secured.

## 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.

## 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.

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ISO 9001, 14001, 45001 - SGS:  
Sika UAE LLC  
Sika International Chemicals LLC  
Sika Gulf B.S.C. (c)  
ISO 9001, 14001 - SGS:  
Sika Saudi Arabia Limited  
ISO 9001, 14001 - TÜV:  
Master Builders Solutions  
Construction Chemicals LLC  
Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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