

**BUILDING TRUST** 

# PRODUCT DATA SHEET

# SikaControl®-1200 WT

(formerly MasterLife® WP 1200)

Crystalline waterproofing admixture for concrete and mortars

#### **DESCRIPTION**

SikaControl®-1200 WT crystalline waterproofing liquid admixture is an integral crystalline capillary water-proofing admixture for concrete. It is designed for use in above- and below-grade applications.

SikaControl®-1200 WT consists of various active, proprietary chemicals which react with the moisture in fresh concrete with the by-products of cement hydration to cause a reaction, which generates an insoluble crystalline deposit throughout the pores and capillary tracts of the concrete. Thus the concrete with Sika-Control®-1200 WT reduces water permeability. This product also has a self-healing property under presence of moisture and can heal cracks below 0.4 mm.

### **USES**

SikaControl®-1200 WT should be used in all structural concrete that is constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and precast concrete. SikaControl®-1200 WT can also be used as crystalline waterproofing admixture for cement mortars and plasters. To waterproof structures such as:

- Building basement and foundations
- Sewage and water treatment plants
- Dams, canals, tunnels, harbours
- Tunnel and subway systems
- Water reservoirs
- Concrete pipes
- Parking structures
- Precast, cast-in-place and shotcrete applications
- Swimming pools
- Retaining walls & sea defense walls

# **CHARACTERISTICS / ADVANTAGES**

- Crystalline cementitious material
- Integral addition
- Reduces concrete permeability
- Allows concrete to breathe
- Non toxic
- Becomes an integral part of the concrete

#### **Benefits**

- Reduces penetration of water and other liquids
- Can seal hairline cracks up to 0.4 mm
- Resists positive and negative side hydrostatic pressure
- Protects against sewage and industrial wastes
- Less expensive than traditional methods and therefore is not subject to climatic restraints
- Added to the concrete at time of batching

#### PRODUCT INFORMATION

| Packaging                  | <ul><li>1000 L IBC tank</li><li>Bulk delivery</li></ul>  |
|----------------------------|--|
| Shelf Life                 | 12 months from date of production. Failure to comply with the recommen ded storage conditions may result in premature deterioration of the product or packaging. |
| Storage Conditions         | SikaControl®-1200 WT must be stored where temperatures do not drop below +5 $^{\circ}$ C.  |
| Appearance / Colour        | Yellow liquid  |
| Density                    | 1.13–0.02 kg/L   |
| Total Chloride Ion Content | < 0.1 % , "Chloride Free" according to EN 934  |

#### **TECHNICAL INFORMATION**

| Indicative Performance of Mortar Mix | Permeability: SikaControl®-1200 WT capillary waterproofing admixture is a crystalline liquid material that reacts in concrete to form insoluble crystalline hydration products in the capillary pores / capillary tracts of the concrete. These crystalline hydration products are deposited and fill the pores and hairline cracks, effectively reduce the permeability of concrete, its capillary absorp- |
|--------------------------------------|---|
| Effect on Setting                    | tion and penetration of water and other liquids into the concrete.  SikaControl®-1200 WT admixture has little to no effect on concrete setting time within the recommended dosage range. However, it is recommended to test this in case any additives or blended cementitious combinations are used in concrete.   |

## SYSTEM INFORMATION

#### Compatibility

SikaControl®-1200 WT admixture can be used with portland cements approved under ASTM and EN specifications. It is compatible with most concrete admixtures, including all Sika® water reducer admixtures. SikaControl®-1200 WT admixture is recommended for use with high-range water reducing admixtures, such as the Sika® ViscoCrete®, Sikament® and Sika® Plastiment® series, for maximum workability while maintaining a low water-to cementitious materials ratio.

# **APPLICATION INFORMATION**

# **Recommended Dosage**

As a guide, a dosage of 1–2.5 % of cementitious content is recommended. Typical dosage is 2 % of cementitious content. For addition to ready mix concrete, a typical dosage of 7 kg per cubic meter of concrete is best recommended. For each 1 kg of SikaControl®-1200 WT, 0.8 kg water has to be reduced from mix water to keep w/c.

For addition information on SikaControl®-1200 WT or on its use in developing concrete mixes with special performance characteristics, contact your local Sika Technical Services Department for further advice Points to remember when producing waterproof concrete:

- Ensure water / cement ratio is less than 0.5
- Addition of good superplasticiser from the Sika® ViscoCrete®, Sikament® or Sika® Plastiment® range is advised to achieve minimum water/cement ratio.
- Place concrete quickly and compact it well.
- Ensure complete curing with a Sika® Antisol® curing compound.



SikaControl®-1200 WT admixture is batched at the concrete production plant in a manner similar to admixtures. It may be batched in either a central or truck mixer. Follow the procedures outlined in ASTM C94 / C94M, Standard Specification for Ready-Mixed Concrete, for general batching and mixing instructions for concrete if adding to a truck mixer. Provide at least 5 minutes of mixing after the addition of SikaControl®-1200 WT admixture to ensure through and uniform distribution of the admixture in the concrete mixture.

#### **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.

# **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**

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.

#### **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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