

## PRODUCT DATA SHEET

# Sika® Watertight Concrete Powder

### PERMEABILITY REDUCING ADMIXTURE

#### PRODUCT DESCRIPTION

Sika® Watertight Concrete Powder is a combined water resisting and HRWR/Superplasticizing admixture used to enhance the workability and reduce the water permeability of concrete. When added to concrete, the HRWR component in the admixture allows for the reduction in the water-cementitious ratio and reduces the large capillary pores in the concrete - the pore blocking component blocks the remaining small capillary pores by forming a hydrophobic layer within the pores. Sika® Watertight Concrete Powder meets requirements of ASTM C 494 Type F, ASTM C 494 Type S and is ANSI/NSF 61 certified and in ANSI.

#### USES

Sika® Watertight Concrete Powder has been specifically formulated to produce high quality watertight concrete.

- Water retaining structures
- Below ground structures
- Swimming pools
- Lift pits
- Tunnels

To improve concrete's resistance to water permeability, it is recommended that along with the use of Sika® Watertight Concrete Powder, the concrete should have a minimum cementitious content of 590 lbs/cyd and a maximum water/cementitious ratio of 0.42.

#### CHARACTERISTICS / ADVANTAGES

- Reduces water absorption
- Reduces water penetration

#### PRODUCT INFORMATION

<b>Packaging</b>	Sika® Watertight Concrete Powder is available in card board boxes, each box contains ten 2.95 lb. (1.34 kg) water soluble bags of Sika® Watertight Concrete Powder.
<b>Appearance / Color</b>	White Powder
<b>Shelf Life</b>	Shelf life of unopened packaging when stored in dry warehouse conditions between 40 °F and 80 °F (5–27 °C) is 2 years.
<b>Storage Conditions</b>	Sika® Watertight Concrete Powder should be stored at above 40 °F (5 °C). Protect from direct sunlight.

## TECHNICAL INFORMATION

### Specific Advice

#### 590 lbs/cu.yd. Cement Content (Type I)

Admixture	Dosage	w/c Ratio	Cement Content	Slump
Control	-	0.50	590 lbs/cu.yd.	4.5 inches
Sika® Water-tight Concrete Powder	2.95 lbs/cu.yd.	0.42	590 lbs/cu.yd.	4.5 inches

Admixture	Compressive Strength	Water Reduction %
Control	7 days, 4150 psi 28 days, 6250 psi	-
Sika® Watertight Concrete Powder	7 days, 7555 psi 28 days, 8725 psi	16

#### 675 lbs/cu.yd. Cement Content (Type I)

Admixture	Dosage	w/c Ratio	Cement Content	Slump
Control	-	0.46	675 lbs/cu.yd.	5 inches
Sika® Water-tight Concrete Powder	2.95 lbs/cu.yd.	0.42	675 lbs/cu.yd.	5 inches

Admixture	Compressive Strength	Water Reduction %
Control	7 days, 7695 psi 28 days, 6950 psi	-
Sika® Watertight Concrete Powder	7 days, 8325 psi 28 days, 8830 psi	16

## APPLICATION INFORMATION

### Recommended Dosage

Dosage of Sika® Watertight Concrete Powder is 2.95 lbs. per cu. yd. of concrete. In the event of part loads less than 1 cu. yd., it is recommended that a 1 cu. yd. dose (2.95 lbs. per cu. yd.) of Sika® Watertight Concrete Powder is used.

## Mixing

Forced action and truck mixers should be free from all contaminants prior to the batching of concrete containing Sika® Watertight Concrete Powder.

- Sika® Watertight Concrete Powder should be added to the mixer at the recommended dose (1 bag per cu.yd. prior to the batching of concrete).
- Batched concrete mix constituents should be subsequently batched on to the Sika® Watertight Concrete Powder.
- Additional mixing water should then be dispensed to bring the concrete to the desired consistency.
- On completion of the batching procedure the concrete load should be mixed in the truck mixer/agitator on full revolutions for a minimum of 5 minutes to ensure that the optimum consistency has been achieved.
- The w/c ratio and consistency control is the responsibility of the concrete producer.

Laboratory trials are recommended to evaluate and confirm the actual water reduction.

**Combination with Other Admixtures:** Sika® Watertight Concrete Powder is compatible with other Sika admixtures. All admixtures should be added separately to the concrete mix. Please contact your local regional office or Technical Service Department at 1-800-933-7452 for further information.

**Combination with Pozzolanic Materials:** Sika® Watertight Concrete Powder can be successfully used in mix designs utilizing pozzolanic materials such as silica fume, fly ash and GGBFS.

**Concrete Mix Design:** Depending on the mix design, water reductions typically between 10–16 % can be achieved. Laboratory trials are always recommended to evaluate and confirm actual water reduction. Should the addition of a HRWR/Superplasticizer be required, it is recommended that a Sika® ViscoCrete® HRWR/Superplasticizer be selected. Please contact your local regional Sika office or Sika Technical Service Department at 1-800-933-7452 for further information.

Note: Results may vary with different materials, temperature conditions and testing practices.

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## BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

## OTHER RESTRICTIONS

See Legal Disclaimer.

## ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

## LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always read and follow the warnings and instructions on the product’s most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by calling SIKA’s Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product’s shelf life. User determines suitability of product for intended use and assumes all risks. User’s and/or buyer’s sole

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Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

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