

## PRODUCT DATA SHEET

# SikaControl®-230 WT

### WATER RESISTING AND CRYSTALLINE WATERPROOFING CONCRETE ADMIXTURE

#### DESCRIPTION

SikaControl®-230 WT is a combined water resisting and crystalline waterproofing admixture used to reduce the permeability of concrete and to enhance the self-healing abilities of the concrete.

#### USES

SikaControl®-230 WT has been specifically formulated to produce high quality waterproof concrete.

SikaControl®-230 WT treated concrete is used as a part of the Sika® Watertight Concrete System.

SikaControl®-230 WT can be used in any below / in / above ground watertight structures such as:

- Basements
- Parking garages
- Utility / plant rooms
- Tunnels
- Swimming pools
- Water retaining structures
- Dams
- Waste water treatment structures
- Underground commercial facilities (malls, transportation hubs etc.)

#### CHARACTERISTICS / ADVANTAGES

SikaControl®-230 WT consists of a mixture of cements, amino alcohols and fillers. These active materials will form non-soluble materials throughout the pore and capillary structure of the concrete and seal the concrete permanently against penetration of water and other liquids. In addition the special formula and ingredients of SikaControl®-230 WT enhances the self-healing properties of concrete and will improve the ability to heal cracks in concrete.

SikaControl®-230 WT has the following characteristics and benefits:

- Reduced water penetration under pressure
- Reduced water absorption
- Enhancement of self-healing properties of the concrete
- Improvement in resistance against chemical attack
- Reduced vapour transmission

#### PRODUCT INFORMATION

<b>Composition</b>	Mixture of cements, amino alcohols and fillers
<b>Packaging</b>	6 x 1.75 soluble bags
<b>Appearance / Colour</b>	Powder / Greyish
<b>Shelf life</b>	12 months from date of production if stored in unopened and undamaged original sealed containers.
<b>Storage conditions</b>	Storage at temperatures between +5 °C and +30 °C. Protect from direct sunlight, moisture, frost and contamination.
<b>Density</b>	~750 kg/m <sup>3</sup>

## TECHNICAL INFORMATION

<b>Concreting guidance</b>	<p>The standard rules of good concreting practice, concerning production and placing, are to be followed.</p> <p><b>Curing</b></p> <p>As curing affect watertightness of the concrete, care should be taken to ensure proper curing. When concrete has hardened and finishing completed, a curing compound such as Antisol® shall be applied at the recommendation rate (refer to the respective product data sheets).</p>
<b>Concrete mix design</b>	<ul style="list-style-type: none"><li>▪ <b>For waterproof concrete,</b> Concrete mix design depends on local requirements and / or local standards for watertight concrete systems.</li><li>▪ <b>For Sika® Watertight Concrete,</b> SikaControl®-230 WT has been formulated for use in concrete with a minimum binder content of 350 kg/m<sup>3</sup> and a maximum w/b-ratio of 0.45. Depending on the specific mix design the dosage of HRWR/superplasticizer has to be evaluated in order to achieve a S3 / F4 consistence class (EN 206-1).</li><li>▪ Laboratory trials are always recommended to evaluate and confirm actual water reduction and consistence class.</li></ul>

## SYSTEMS

<b>Compatibility</b>	<p>Sika joint systems is highly recommended to seal construction, movement, and difficult joints.</p> <table><thead><tr><th><b>Construction Joints</b></th><th><b>Movement Joints</b></th><th><b>Special/Difficult Joint</b></th></tr></thead><tbody><tr><td>Sika® Waterbar</td><td>Sika® Waterbar</td><td>SikaFuko®</td></tr><tr><td>Sika Swell® S-2</td><td>Sikadur® Combiflex®</td><td>Sikadur® Combiflex®</td></tr><tr><td>Sika® Hydrotite</td><td></td><td></td></tr><tr><td>SikaFuko®</td><td></td><td></td></tr><tr><td>Sikadur® Combiflex®</td><td></td><td></td></tr></tbody></table> <p>Concrete produced using the SikaControl®-230 WT will produce concrete with improved water impermeability. However, the system is not designed as a moisture vapour barrier and should therefore only be specified under the following conditions:</p> <ul style="list-style-type: none"><li>▪ No finishing is required</li><li>▪ A breathable finish such as plaster, quarry tiles, floor hardener, etc. is required</li></ul> <p>If non-breathable finishes such epoxy, polyurethane flooring systems, vinyl tiles, carpet, etc. are to be applied, a temporary moisture barrier will be required as an underlay.</p>	<b>Construction Joints</b>	<b>Movement Joints</b>	<b>Special/Difficult Joint</b>	Sika® Waterbar	Sika® Waterbar	SikaFuko®	Sika Swell® S-2	Sikadur® Combiflex®	Sikadur® Combiflex®	Sika® Hydrotite			SikaFuko®			Sikadur® Combiflex®		
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Sikadur® Combiflex®																			

## APPLICATION INFORMATION

<b>Recommended dosage</b>	1.75 kg bag per m <sup>3</sup>
<b>Compatibility</b>	<p>SikaControl®-230 WT may be combined with many other Sika products.</p> <ul style="list-style-type: none"><li>▪ Sika® ViscoCrete® Series</li><li>▪ Sikament® Series</li><li>▪ SikaFume®</li><li>▪ Sika® Fibre, etc.</li></ul> <p>Concrete containing SikaControl®-230 WT should have a minimum SCM of not more than 40%.</p> <p>Note:</p> <p>Always conduct trials before combining products in specific mixes and contact our Sika technical service for more information and advice.</p>
<b>Restrictions</b>	<p>When using of SikaControl®-230 WT in combination with SCM. The SCM content should be limited to max. 40 % of total binder content. (Fly ash / GGBFS / Silica fume).</p>

## APPLICATION INSTRUCTIONS

### DISPENSING

- Before batching, check the truck/mixer to ensure no water is in the drum/mixer
- Batch concrete based on the concrete mix design and mix homogeneously
- Add SikaControl®-230 WT and mix for at least 5-10 minutes with the concrete mixing truck at full speed
- Alternative dispensing sequence can be used provided that the batcher can ensure a homogeneous mix. The homogeneity of mix after dosing of SikaControl®-230 WT remains the responsibility of the applicator. The w/c ratio and consistency control remains the responsibility of the concrete producer. Actual plant trials must be carried out before jobs commence to determine both fresh and hardened properties.

### IMPORTANT CONSIDERATIONS

When using SikaControl®-230 WT a suitable mix design has to be taken into account and local material sources shall be tested.

### 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.

### 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 the exact product data and uses.

### ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) 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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