# PRODUCT DATA SHEET

# Sikament®-100 SC

### **ANTI-WASHOUT ADMIXTURE**

### PRODUCT DESCRIPTION

Sikament®-100 SC is an anti-washout admixture specially designed for the underwater placement of concrete and grout. The admxiture is formulated with a unique bipolymer that Increases mix cohesiveness and imparts a variable viscosity characteristic to concrete and grout. Sikament®-100 SC produces concrete that becomes fluid and flowable when sheared or mechanically agitated such as during pumping operations. This characteristic enables concrete to flow easily through and into confined spaces. When at rest, the concrete will revert to a dense, high viscous, consistency. This cohesive cement paste matrix promotes high compressive and flexural strength development.

### WHERE TO USE

- Ideal for underwater placement of concrete and grout in fresh and saltwater environments.
- Improves underwater "stacking" characteristics when concrete is placed by tremie operations.
- The ability of concrete mixtures to penetrate and consolidate foundation rock layers is dramatically improved, for example, as required in jetty sealing operations.
- May also be used as a water reducing and antiwashout additive for placement into bentonite slurries or similar materials.

## **CHARACTERISTICS / ADVANTAGES**

- Reduces or eliminates the need to dewater underwater construction sites before concrete construction or concrete placement can take place: Concrete can be placed by pump or tremie directly into areas covered by water
- Concrete matrix integrity is maintained during high slump placements and washout is reduced from the surface during curing
- Reduce or eliminate dewatering costs associated with underwater construction
- Concrete is easy to pump and flows readily into available spaces
- Segregation and dilution are reduced, in-place compressive and bond strengths are significantly increased
- Laitance on concrete surface caused by cement paste washout during curing is reduced or eliminated
- Active slump life of the concrete is doubled without extended delays in setting time

# **APPROVALS / CERTIFICATES**

- Sikament®-100 SC meets the requirements of CRD-C661-06
- Approved by the Ministère des Transports du Québec (MTQ)

### PRODUCT INFORMATION

CSC MasterFormat®	03 05 00
Packaging	20 L (5.2 US gal.) pail 205 L (54 US gal.) drum
	1040 L (275 US gal.) IBC

### **Product Data Sheet**

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Bulk delivery
Liquid / Brown
1 year when stored in dry warehouse conditions at temperatures between 10 $^{\circ}\text{C}$ and 27 $^{\circ}\text{C}$ (50 $^{\circ}\text{F}$ and 80 $^{\circ}\text{F}$ ).
Store at temperatures above 5 $^{\circ}$ C (40 $^{\circ}$ F). If frozen, thaw and agitate thoroughly to return to normal state. Protect from direct sunlight.
Approx. 1.2

### APPLICATION INFORMATION

Mixing	Site Preparation
	Additional high range water reducing admixtures may be required to obtain desired workability of the concrete. Consult your Sika Canada Technical Sales Representative for further information.
Recommended Dosage	Sikament®-100 SC is formulated for use at a rate of approximately 2.58 L/m³ (630 mL/100 kg)). This proportion is based on a nominal 300 kg of cement in the mix with a 0.40 water/cement ratio. The amount of Sikament®-100 SC must be proportionately increased when water content is increased. Sikament®-100 SC if used at higher dosages may delay the initial set of concrete.

The area should be clean and free of oil and grease, curing compounds and foreign objects. Minimize the drop of unprotected concrete through water or slurries.

### **Mixing**

Sikament®-100 SC should be added to the fresh concrete after all the other mix ingredients have been blended together. Addition of the Sikament®-100 SC directly into the concrete too early in the mixing may promote clumping of the mix materials. For best results, the concrete should be prepared in a concrete mixer that can thoroughly shear the materials and blend all of the components. Turbine mixers in ready-mix plants often perform better than dry batched transit mixers. Insufficient mixing or use of less than recommended quantities of Sikament®-100 SC may result in a concrete mix that is more likely to bleed or separate.

### **Placing**

When placing concrete under water or through slurries, minimize its free drop through the placement media (e.g. water or slurry) and attempt to place it continuously and without interruption. Keep the discharge point of the placement device immersed in concrete whenever possible. Reduce the amount of water used or increase the dosage of Sikament®-100 SC if the concrete or grout appears to separate or bleed. The action of pumping the concrete under pressure into a congested area should indirectly shear the concrete and make it flow readily and easily into the available spaces. If the concrete does not flow readily in these conditions confirm that the concrete is not approaching initial set and that the mix has been formulated properly.

### **BASIS OF PRODUCT DATA**

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

### **ENVIRONMENT, HEALTH & 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 safetyrelated data.

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### 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 enduse 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

### Sika Canada Inc.

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### Other locations

Boisbriand (Quebec) Brantford; Cambridge; Sudbury; Toronto (Ontario) Edmonton (Alberta) Surrey (British Columbia)

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