

PRODUCT DATA SHEET

Sika® ViscoCrete®-2100

HIGH RANGE WATER REDUCING ADMIXTURE



PRODUCT DESCRIPTION

Sika® ViscoCrete®-2100 is a high range water reducing and superplasticizing admixture utilizing Sika's ViscoCrete® polycarboxylate polymer technology.

WHERE TO USE

- Sika® ViscoCrete®-2100 may be used in both ready-mix and precast applications, as a plant added high range water reducer to provide excellent plasticity while maintaining slump for up to 90 minutes. Controlled set times make it ideal for horizontal and vertical applications.
- Sika® ViscoCrete®-2100 is ideal for production of Self-Consolidating Concrete (SCC).

CHARACTERISTICS / ADVANTAGES

Water Reduction: Sika® ViscoCrete®-2100 can be dosed in small amounts to obtain water reduction from 10–15 % and will achieve water reduction up to 45 % at high dosage rates. Sika® ViscoCrete®-2100 is suitable for all levels of water reduction.

High Plasticity: The superplasticizing action of Sika® ViscoCrete®-2100 provides high-slump, flowing concrete that maintains excellent workability and may be placed with minimal vibration even at very low water cement ratio's as low as 0.25.

Sika® ViscoCrete®-2100 plasticized concrete is highly fluid while maintaining complete cohesion within the concrete matrix to eliminate excessive bleeding or segregation.

Extended Slump Life and Set Control: Sika® ViscoCrete®-2100 has been formulated to provide controlled and predictable extended slump life for periods of 60 to 90 minutes with normal set times.

The combined high range water reduction and superplasticizing action of Sika® ViscoCrete®-2100 provide the following benefits in hardened concrete:

- Higher ultimate strengths allow for greater engineering design flexibility and structural economies
- Reduced water cement ratios produce more durable, dense concrete with reduced permeability
- Highly effective plasticizer reduces surface defects in concrete elements and improves aesthetic appearance

Sika® ViscoCrete®-2100 has been formulated to provide maximum water reduction and extended slump retention at low dosages.

ENVIRONMENTAL INFORMATION

Conformity with LEED®v4 MR Credit (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations - Conformity with LEED®v4 MR Credit (Option 1): Building Product Disclosure and Optimization - Sourcing of Raw Materials

APPROVALS / CERTIFICATES

- ASTM C494 Types A and F
- AASHTO M194 Type A and F
- Approved by the Ontario Ministry of Transportation (MTO)
- Approved by the Ministère des Transports du Québec

PRODUCT INFORMATION

CSC MasterFormat®	03 05 00 COMMON WORK RESULTS FOR CONCRETE
Packaging	205 L (54 US gal.) drum 1040 L (275 US gal.) IBC Bulk delivery
Shelf Life	1 year when stored in dry warehouse conditions, at temperatures between 10 °C and 27 °C (50 °F and 80 °F).
Storage Conditions	Store in dry conditions at temperatures above 2 °C (35 °F). If frozen, thaw and agitate thoroughly to return to normal state.
Appearance / Colour	Liquid / Light blue
Specific Gravity	Approx. 1.08

APPLICATION INFORMATION

Recommended Dosage	Dosage rates will vary according to materials used, ambient conditions and the requirements of a specific project. Sika recommends dosage at 65–390 mL/100 kg (1–6 fl.oz. per 100 lb) of cementitious materials for conventional concrete applications. If high slump or Self-Consolidating Concrete (SCC) is required, dosage from 325–780 mL/100 kg (5–12 fl.oz./100 lb) of cementitious materials may be used. Dosage rates outside the recommended range may be used where specialized materials such as microsilica are specified, extreme ambient conditions are encountered or unusual project conditions require special consideration. Please contact your Sika Canada Technical Sales Representative for more information and assistance.
Mixing	Mixing For best superplasticizing results, add Sika® ViscoCrete®-2100 directly to freshly mixed concrete in the concrete mixer at the end of the batching cycle. It may also be dispensed as an integral material during the regular admixture batching cycle, or into freshly mixed concrete in a ready-mix truck, at the concrete plant or at the job site. To optimize the superplasticizing effect after the addition of Sika® ViscoCrete®-2100, Sika recommends that the combined materials be mixed for 60–80 revolutions either in the concrete mixer or in the ready-mix truck. Do not introduce Sika® ViscoCrete®-2100 directly onto dry cementitious materials. Combination with other admixtures: Sika® ViscoCrete®-2100 is highly effective as a single admixture or in combination with other Sika admixtures. If used in combination with certain Sikament® high range water reducers, it may affect the plastic properties of fresh concrete. Please contact your Sika Canada Technical Sales Representative for further information. Combination with microsilica: Sika® ViscoCrete®-2100 is particularly well suited for use with microsilica because of its water reduction capability.

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 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 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



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Product Data Sheet

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