

PRODUCT DATA SHEET

Sika® ViscoCrete®-4100

High Range Water Reducing Admixture

PRODUCT DESCRIPTION

Sika® ViscoCrete®-4100 is a high range water reducer and superplasticizer utilizing Sika's 'ViscoCrete®' polycarboxylate polymer technology. Sika® ViscoCrete®-4100 meets the requirements for ASTM C-494 Types A and F and AASHTO M-194 Types A and F.

USES

Sika® ViscoCrete®-4100 is designed for high early strength applications, and may also be used for the production of Self Consolidating Concrete (SCC). Sika® ViscoCrete®-4100 is a high range water reducer that provides excellent plasticity, prolonged workability and extended slump life even if used during the summer months. Sika® ViscoCrete®-4100 can be combined with accelerating or retarding admixtures to achieve required compressive strengths and setting time.

CHARACTERISTICS / ADVANTAGES

Water Reduction: Sika® ViscoCrete®-4100 can be dosed in small amounts to obtain water reduction from 10–15 %, and will achieve water reduction up to 40 % at high dosage rates. Sika® ViscoCrete®-4100 is suitable for all levels of water reduction.

High Plasticity and Cohesion: The special formulation of Sika® ViscoCrete®-4100 helps maintain the plasticity of the concrete and extends its workability time during warmer months when slump loss and fast stiffening of the fresh concrete can be a concern. The superplasticizing action of Sika® ViscoCrete®-4100 provides high slump, flowing concrete that maintains excellent workability, and may be placed with minimal or no vibration even at very low water cement ratios as

low as 0.25. Sika® ViscoCrete®-4100 maintains excellent cohesion within the concrete matrix, and eliminates excessive bleeding or segregation. The unique plasticizing effect of Sika® ViscoCrete®-4100 provides excellent formed surface finish. The combined high range water reduction and superplasticizing action of Sika® ViscoCrete®-4100 provide the following benefits in hardened concrete:

- High early compressive strengths for earlier removal of forms and structural use of concrete.
- High 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.
- Ideal for the production of Self Consolidating Concrete.

Sika® ViscoCrete®-4100 has been formulated to provide maximum water reduction, increased early strength, improved finishing characteristics, especially when a broom is desired. Sika® ViscoCrete®-4100 does not contain formaldehyde, calcium chloride or any other intentionally added chlorides, and will not initiate or promote the corrosion of steel present in the concrete.

PRODUCT INFORMATION

Packaging	Sika® ViscoCrete®-4100 is available in 55 gallon drums (208 liters), 275 gallon totes (1040 liters) and bulk delivery.
Appearance / Color	Green Liquid
Shelf Life	Shelf life when stored in dry warehouse conditions between 50 °F and 80 °F (10–27 °C) is one year minimum.
Storage Conditions	Sika® ViscoCrete®-4100 should be stored at above 40 °F (5 °C). If frozen, thaw and agitate thoroughly to return to normal state.
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 3-8 fl.oz. per 100 lbs. (195–520 ml/100 kg) of cementitious for general concrete applications. If maximum water reduction is required, dosage up to 12 fl.oz./100 lbs (780 ml/100 kg) of cementitious may be used. In this case, delayed setting times may occur. 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 representative for more information and assistance.
Mixing	<p>For best superplasticizing results, add Sika® ViscoCrete®-4100 directly to freshly mixed concrete in the concrete mixer at the end of the batching cycle. Sika® ViscoCrete®-4100 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®-4100, Sika recommends that the combined materials be mixed for 80–100 revolutions either in the concrete mixer or in the Ready Mix truck.</p> <p>Combination with other admixtures: Sika® ViscoCrete®-4100 is highly effective as a single admixture or in combination with other admixtures in the Sika System. If used in combination with certain Sikament® high range water reducers it may affect the plastic properties of fresh concrete. Please contact a Sika representative for further information.</p> <p>Combination with microsilica: Sika® ViscoCrete®-4100 is particularly well suited for use with microsilica because of its water reduction capability.</p>

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 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 remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs.

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Sika Corporation

201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com

Sika Mexicana S.A. de C.V.

Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537



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