

PRODUCT DATA SHEET

Sika® ViscoCrete®-5100

HIGH RANGE WATER REDUCING ADMIXTURE

PRODUCT DESCRIPTION

Sika® ViscoCrete®-5100 is a fast wetting and dispersing high range water reducing admixture utilizing Sika's ViscoCrete® polycarboxylate technology. Sika® ViscoCrete®-5100 meets the requirements of ASTM C494/AASHTO M 194, Type A & F.

USES

Sika® ViscoCrete®-5100 is designed for use in both precast and ready mix applications whenever high plasticity and increased early/ultimate strengths are required and is effective in concrete containing Portland Limestone Cement (PLC/Type IL) and supplementary cementitious materials. Sika® ViscoCrete®-5100 can be used for production of SCC (Self-Consolidating Concrete), UHPC (Ultra-High Performance Concrete) as well as for production of conventional slump concrete.

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-5100 provides the fastest wetting and dispersing properties in the Sika® ViscoCrete® product line making it especially suitable for precast/prestress applications. Various levels of water reduction can be achieved by adjusting the dosage rate of Sika® ViscoCrete®-5100.

When used as a high range water reducing admixture, water reduction up to 40% can be obtained. The superplasticizing action of Sika® ViscoCrete®-5100 allows for the production of high slump/flow concrete with excellent workability that can typically be placed with minimal vibration even at an extremely low water/cementitious ratio.

At lower dosages rates Sika® ViscoCrete®-5100 is an effective normal water reducing or mid-range water reducing admixture. This application is ideal for use in conventional concrete containing supplementary cementitious materials.

The combined water reducing and superplasticizing action of Sika® ViscoCrete®-5100 provides the following benefits:

- Improved batch-to-batch consistency,
- Reduced water cement ratios produce more durable, dense concrete,
- Increased slump and workability improves efficiency of labor and reduces labor costs,
- Improved finishing characteristics,
- Increased early and ultimate strengths allow faster structural use of concrete,
- Increased early strengths allow faster demolding and more efficient use of forms for precast producers.

Sika® ViscoCrete®-5100 does not contain intentionally added chlorides.

ENVIRONMENTAL INFORMATION

Substantially lower carbon footprint through reduction in cementitious materials. Less water consumed per volume of concrete.

Fast wetting and dispersing properties reduce wear on machinery, improving equipment lifespan and reducing energy consumption.

For further information, please visit:
<https://usa.sika.com/en/sustainability.html>

PRODUCT INFORMATION

Packaging	Available in 55-gallon (208-liter) drums, 275-gallon (1040-liter) totes and bulk delivery.
Shelf Life	Shelf life when stored in original packaging in dry warehouse conditions between 40°F and 80°F (5-27°C) is one year from the date of manufacture.
Storage Conditions	Sika® ViscoCrete®-5100 should be stored above 40°F (5°C). If frozen, thaw and agitate thoroughly to return to a normal state. Protect from direct sunlight.
Appearance / Color	Purple, Opaque Liquid
Specific gravity	Approx. 1.087

APPLICATION INFORMATION

Recommended Dosage	<p>The typical dosage rate of Sika® ViscoCrete®-5100 will vary between 1-8 fl oz / 100 lb. (65-520 mL / 100 kg) of cement or cementitious materials. If maximum water reduction is required, dosage rates up to 12 fl oz / 100 lb. (780 mL / 100 kg) of cement or cementitious materials may be used. For UHPC (Ultra-High Performance Concrete) applications higher dosage rates may be required. Various factors will affect the dosage rates.</p> <p>Trial mixes with the actual materials should be conducted to determine the required dosage for optimum performance.</p> <p>To the extent specialized materials are used, extreme ambient temperatures are encountered, or for other unusual project conditions, dosage rates outside the typical range may be required. For dosage rates outside the typical range, please contact your local Sika representative or the Sika Technical Services Department at 1-800-933-7452.</p>
Mixing	<p>Measure the required quantity manually or by automated dispenser. Add Sika® ViscoCrete®-5100 directly into the freshly mixed concrete, or as an integral material in the batching cycle. Do NOT mix with dry cement. Sika® ViscoCrete®-5100 may be dispensed on-site directly prior to placement. Care must be taken to mix thoroughly. When used in combination with other admixtures dispense each admixture separately into the mix.</p> <p>Compatibility: Sika® ViscoCrete®-5100 can be used in combination with other Sika admixtures and can be successfully used in mix designs utilizing supplementary cementitious materials.</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.

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.

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,

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. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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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Product Data Sheet

Sika® ViscoCrete®-5100
July 2024, Version 01.02
021301011000000135

SikaViscoCrete-5100-en-US-(07-2024)-1-2.pdf

