



PRODUCT DATA SHEET

Sika® ViscoCrete®-5100

FAST-WETTING HIGH RANGE WATER REDUCER

PRODUCT DESCRIPTION

Sika® ViscoCrete®-5100 a unique, quick dispersing and fast-wetting high range water reducer utilizing Sika's 'ViscoCrete®' polycarboxylate polymer technology.

WHERE TO USE

Sika® ViscoCrete®-5100 is a high range water reducer that provides rapid dispersion and excellent plasticity. Sika® ViscoCrete®-5100 is developed for conventional precast/prestress and ready-mix applications, volumetric truck mixing, and suitable for the production of Self Consolidating Concrete (SCC) and Ultra High-Performance Concrete (UHPC) as well as Dry Cast applications.

CHARACTERISTICS / ADVANTAGES

Water Reduction:

Sika® ViscoCrete®-5100 is suitable for all levels of water reduction.

Sika® ViscoCrete®-5100 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.

High Plasticity and Cohesion:

The fast-wetting and quick dispersing superplasticizing action of Sika® ViscoCrete®-5100 provides high-slump concrete that maintains excellent workability, and may be placed with minimal or no vibration even at very low water cement ratios. Sika® ViscoCrete®-5100 maintains excellent cohesion within the concrete matrix and eliminates excessive bleeding or segregation. The unique plasticizing effect of Sika® ViscoCrete®-5100 provides excellent formed surface finish.

End Use Benefits:

- Fast wetting and quick dispersion allows shorter mix times and reduced cycle times.
- High water reduction and fast dispersion allows for lower water cement ratios to produce more durable, dense concrete with reduced permeability.
- Higher early compressive strengths for earlier removal of forms and structural use of concrete.
- Highly effective high range water reducer reduces surface defects in concrete elements and improves aesthetic appearance.

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

PRODUCT INFORMATION

Packaging	Sika® ViscoCrete®-5100 is available in 208 liters (55 gallon drums) , 1040 liters (275 gallon totes) and bulk delivery.
Shelf Life	Shelf life when stored in dry warehouse conditions between 5–27 °C (40 °F and 80 °F) is one year from date of manufacture.
Storage Conditions	Sika® ViscoCrete®-5100 should be stored above 2 °C (35 °F) . If frozen, thaw and agitate thoroughly to return to a normal state. Protect from direct sunlight.

APPLICATION INFORMATION

Recommended Dosage

The typical dosage range for Sika® ViscoCrete®-5100 is 195-520ml per 100 kg (3-8 fluid ounces per 100 lbs.) of cementitious material. For maximum water reduction, dosage rates up to 780 ml per 100 kg (12 fluid ounces per 100 lbs.) of cementitious material may be used.

Dosage rates vary depending upon the amount of plasticity and/or water reduction desired. Slump, ambient temperature, water-cementitious ratio, mixing time and various concrete materials, such as type of cement and supplementary cementitious materials, will affect dosage rates. It is recommended to conduct trial mixes with the actual materials to determine the required dosage for optimum performance.

To the extent specialized materials (such as microsilica) are specified, extreme ambient project conditions are encountered, or other unusual project conditions require special consideration that affect dosage rates, please contact your local regional Sika office or Sika technical service department.

Mixing

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. Sika® ViscoCrete®-5100 may be dispensed on site directly prior to use. Care must be taken to mix thoroughly. When used in combination with other admixtures dispense each admixture separately into the mix. Do not mix with dry cement.

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

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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