

Sika® ViscoCrete®-2100

High Range Water Reducing Admixture

Description Sika® ViscoCrete®-2100 is a high range water reducing and superplasticizing admixture utilizing Sika's 'ViscoCrete' polycarboxylate polymer technology. Sika® ViscoCrete®-2100 meets the requirements for ASTM C-494 Types A and F.

Applications 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 Sika® ViscoCrete®-2100 ideal for horizontal and vertical applications, Sika® ViscoCrete®-2100 is ideal for production of Self Consolidating Concrete (SCC).

Benefits **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 ratios 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.

It has been formulated to provide maximum water reduction and extended slump retention at low dosages. Sika® ViscoCrete®-2100 is a non-chloride based admixture, it does not contain any intentionally added chlorides.

How to Use

Dosage

Dosage rates will vary according to materials used, ambient conditions and the requirements of a specific project. Sika recommends dosage at 1-6 fl.oz. per 100 lbs. (65-390 ml/100 kg) of cementitious materials for conventional concrete applications. If high slump or Self Consolidating Concrete (SCC) is required, typically dosage from 5-12 fl.oz./100 lbs. (325-780 ml/100 kg) 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. In this case, Please contact your local regional Sika representative or Sika Technical Service Department 1-800-933-7452 for more information and assistance.

Concrete



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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.

Sika® ViscoCrete®-2100 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.

To optimize the superplasticizing effect, after the addition Sika® ViscoCrete®-2100, Sika recommends that the combined materials be mixed for 80-100 revolutions, either in the concrete mixer or in the Ready-Mix truck.

Combination with Other Admixtures: Sika® ViscoCrete®-2100 is highly effective as 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.

Combination with Microsilica: Sika® ViscoCrete®-2100 is particularly well suited for use with microsilica because of its water reduction capability and superior slump control.

Packaging

Sika® ViscoCrete®-2100 is available in 55 gallon drums (208 liters), 275 gallon totes (1040 liters) and bulk delivery.

Storage and Shelf Life

Sika® ViscoCrete®-2100 should be stored at above 40°F (5°C). If frozen, thaw and agitate thoroughly to return to normal state.

Shelf life when stored in dry warehouse conditions between 50°F and 80°F (10°C - 27°C) is one year minimum.

Typical Data**Appearance**

Blue Liquid

Specific Gravity

Approx. 1.08

KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY • FOR PROFESSIONAL USE ONLY

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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 shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

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Quality Certification Numbers: Lyndhurst: FM 69711 (ISO 9000), FM 70421 (QS 9000), Marion: FM 69715, Kansas City: FM 69107, Santa Fe Springs: FM 69408



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