

Sika® ViscoCrete® 6100

High Range Water Reducing Admixture

Description Sika® ViscoCrete® 6100 is a high range water reducing and superplasticizing admixture utilizing Sika's ViscoCrete® polycarboxylate polymer technology.

Where to Use

- Sika® ViscoCrete® 6100 is designed for conventional precast/prestress applications, and may also be used for the production of Self-Consolidating Concrete (SCC).
- Sika® ViscoCrete® 6100 is a high range water reducer that provides excellent plasticity, and may be combined with accelerator or retarder admixture to control the set time and slump life.

Advantages **Water Reduction:** Sika® ViscoCrete® 6100 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® 6100 is suitable for all levels of water reduction.

High Plasticity and Cohesion: The superplasticizing action of Sika® ViscoCrete® 6100 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® 6100 maintains excellent cohesion within the concrete matrix, and eliminates excessive bleeding or segregation. The unique plasticizing effect of Sika® ViscoCrete® 6100 provides excellent formed surface finish.

The combined high range water reduction and superplasticizing action of Sika® ViscoCrete® 6100 provide the following benefits in hardened concrete:

- Higher early compressive strengths for earlier removal of forms and structural use of 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.
- Ideal for the production of SCC.
- Ideal for ready-mix trucks.

It has been formulated to provide maximum water reduction, increased early strength, improved finishing characteristics, especially when a broom is desired.

Sika® ViscoCrete® 6100 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.

- Approved by the Ontario Ministry of Transportation.
- Approved by the Ministère des Transports du Québec.

Standards Sika® ViscoCrete® 6100 meets the requirements for ASTM C494 Types A and F.

| Typical Data | |
|-------------------------------|---|
| Packaging | 205 L (54 US gal.) drum 1040 L IBC container Bulk delivery |
| Colour and Form | Amber liquid |
| Shelf Life and Storage | 1 year when stored in dry warehouse conditions between 10 - 27°C (50 - 80°F). Store at above 5°C (40°F). If frozen, thaw and agitate thoroughly to return to normal state. |
| Properties | |
| Specific Gravity | Approx. 1.09 |



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 195 - 520 mL/100 kg of cementitious for general concrete applications. If maximum water reduction is required dosage up to 780 mL/100 kg of cementitious 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 Sika Canada Technical Sales Representative for more information and assistance.

Curing

Cure concrete according to ASTM C31/C31M or other applied specification.

Mixing

For best superplasticizing results, add Sika® ViscoCrete® 6100 directly to freshly mixed concrete in the concrete mixer at the end of the batching cycle.

Sika® ViscoCrete® 6100 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 of Sika® ViscoCrete® 6100, Sika recommends that the combined materials be mixed for 60 - 80 revolutions either in the concrete mixer or in the ready-mix truck.

Combination with other admixtures: Sika® ViscoCrete® 6100 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 Canada Technical Sales Representative for further information.

Combination with microsilica: Sika® ViscoCrete® 6100 is particularly well suited for use with microsilica because of its water reduction capability. Do not introduce Sika® ViscoCrete® 2110 directly onto dry cementitious materials.

Clean Up

Use personal protective equipment (chemical resistant goggles/gloves/clothing). Without direct contact, remove spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the **most recent Material Safety Data Sheet** containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



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