

Sika® ViscoCrete® 1000

High Range Water Reducing Admixture

Construction

Description Sika® ViscoCrete® 1000 is a high range water reducer utilizing the combination of Sika® ViscoCrete® and Sika® ViscoFlow® Technology. Its unique formulation is based on polycarboxylate technology.

Where to Use

- Sika® ViscoCrete® 1000 is recommended for production of all high strength, concrete products, whenever high plasticity, prolonged slump retention and increased early/ultimate strengths are required.
- Sika® ViscoCrete® 1000 can be used for production of SCC (Self-Consolidating Concrete) as well as for production of conventional slump concrete.

Advantages The implementation of the latest Sika® ViscoFlow® Technology allows Sika® ViscoCrete® 1000 to extend the slump retention without a negative impact on set time. This is beneficial especially in a hot climate environment when the slump loss of a concrete mixture is more likely to occur. Sika® ViscoCrete® 1000 can be used for the production of SCC as well as for the production of conventional slump concrete.

High-Range Water Reducing Applications: When used as a high range water reducing admixture, water reduction up to 35% can be obtained. The superplasticizing action allows for the production of high slump flowing concrete with excellent workability and extended slump retention that can be placed with minimum vibration even at a low water/cement ratio. The dispersing action of Sika® ViscoCrete® 1000 maximizes cement hydration efficiency and improves concrete's early and long term compressive strengths. Extended slump retention does not have negative effect on setting times.

Mid-Range Water Reducing Applications: At a lower dosage, Sika® ViscoCrete® 1000 can be used as a cost effective mid range water reducing admixture or simply as a water reducing admixture for production of conventional slump concrete. When used as a mid range water reducing admixture, water reduction up to 15% can be obtained. This application is ideal for use with lean, harsh concrete mixes or concrete containing flyash. Sika® ViscoCrete® 1000 will improve workability and finishability.

The combined water reducing and superplasticizing action provide the following benefits:

- Higher early and ultimate strengths for cost effective high strength concrete and earlier structural use of concrete.
- Higher early strengths allow faster demolding and more efficient use of forms to precast producers.
- Improved slump retention will extend workability without negative effect on setting time characteristics of the concrete mixture.
- Increased slump improves workability and reduces labor costs.
- Greater concrete density reduces permeability and increases durability.

Sika® ViscoCrete® 1000 does not contain calcium chloride or any other intentionally added chlorides and will not initiate or contribute to corrosion on steel reinforcement present in the concrete.

Standards Sika® ViscoCrete® 1000 meets the interim requirements of ASTM C494 type F.

Typical Data

Packaging

205 L (54 US gal.) drum
1040 L (275 US gal.) IBC
Bulk delivery

Colour and Form

Brown liquid

Shelf Life and Storage

One year minimum when stored in dry warehouse conditions between 5 - 27°C (40 - 80°F). Store at above 5°C (40°F). If frozen, thaw and agitate thoroughly to return to normal state. Protect from direct sunlight.

Properties

Specific Gravity

Approx. 1.06



Sika®

How to Use

Dosage

Dosage rates of Sika® ViscoCrete® 1000 will vary depending on the materials used, ambient conditions and the requirements of a specific project. For general concreting applications, Sika recommends a dosage rate of between 195 - 780 mL/100 kg cementitious materials. If maximum water reduction is required, dosage up to 1170 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, contact your Sika Canada Technical Sales Representative for further information.

Curing

Proper curing according to ACI guidelines should be always followed to achieve maximum possible quality of concrete.

Mixing

For best plasticizing results, Sika® ViscoCrete® 1000 should be added directly to freshly mixed concrete in the concrete mixer at the end of the batching cycle. Sika® ViscoCrete® 1000 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 job site. To optimize the superplasticizing effect, 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® 1000 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. In this case, contact your Sika Canada Technical Sales Representative for further information.

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

Les renseignements et, notamment, les recommandations touchant l'application et l'utilisation ultime des produits Sika sont communiqués de bonne foi, sur la base des connaissances et de l'expérience actuelles de Sika, et concernent les produits entreposés, maniés et appliqués dans des conditions normales, dans le délai d'utilisation prescrit. Dans la pratique, les matériaux, les substrats et les conditions réelles du site peuvent varier de manière substantielle. Par conséquent, Sika n'offre aucune garantie quant à la qualité marchande ou à la convenance à un usage particulier et décline toute responsabilité relativement aux renseignements, aux recommandations et aux conseils fournis. Les droits exclusifs des tiers doivent être respectés. Sika accepte toutes les commandes sous réserve de ses modalités de paiement et de livraison courantes. Les utilisateurs doivent toujours consulter la plus récente version de la Fiche technique du produit qu'ils peuvent obtenir sur demande ou en consultant notre site Internet à www.sika.ca.



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