

PRODUCT DATA SHEET

Sika® ViscoCrete®-2000

POLYCARBOXYLATE BASED HIGH RANGE WATER-REDUCING WITH ENHANCED WORKABILITY RETENTION

DESCRIPTION

Sika® ViscoCrete®-2000 is a polycarboxylate based superplasticizer developed particularly for use in ready mixed concrete to give extended slump retention and high strength development of high specification grade concrete mixes.

Suitable for use in hot and tropical climatic conditions also.

USES

Sika® ViscoCrete®-2000 is mainly used for the following applications:

- Production of site mixed and ready-mix concrete
- During hot weather production of concrete with extended transportation or placing times
- Concrete requiring retained workability
- Concrete with low water binder ratio
- Depending on dosage rate used; high flow and self-compacting concrete (SCC)
- High performance / high strength concrete
- Precast concrete

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-2000 acts by surface absorption on the cement particles producing steric hindrance and electrostatic repulsion between cement particles which results in higher dispersion, flow and retention. Sika® ViscoCrete®-2000 provides the following beneficial properties:

- Powerful plasticising action
- Production of workable concrete at low w/b ratio
- Improved shrinkage and creep characteristics
- Excellent flowability resulting in minimal placing and compacting efforts
- Slower rate of carbonation ingress
- Higher ultimate strengths
- Reduced surface defects so improving aesthetic appearance
- Durable concrete
- Does not contain chlorides

APPROVALS / CERTIFICATES

Sika® ViscoCrete®-2000 meets the standard type of high range water reducer of KS F 2560

PRODUCT INFORMATION

Composition	Aqueous solution of modified polycarboxylates, co-polymers
Packaging	200kg/drum, 1,000kg/IBC, Tank lorry/bulk
Shelf life	12 months from date of manufacture when stored as stated
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Protect from direct sunlight and frost.
Specific Gravity	1.07 ± 0.05

APPLICATION INFORMATION

Recommended Dosage

0.8 - 2.0 % by weight of binder
Higher dosages by weight of binder can be used depending on the mix design, raw materials, climatic conditions and concrete requirements.
Trial mixes must be performed to establish the exact dosage rate required.

Compatibility

Sika® ViscoCrete®-2000 may be combined with all types of Portland cement, concretes containing pozzolanic materials such as; GGBS, PFA, micro-silica and the following Sika products: Sika® FerroGard®-901, SikaFume®, SikaFiber®, Sika Aer®, Sika® Stabilizer,...
We recommend to perform trial mixes to establish the required performance when combining Sika® ViscoCrete®-2000 with the above products or other admixtures.

APPLICATION INSTRUCTIONS

DISPENSING

Sika® ViscoCrete®-2000 can be added into the mixing water or directly into the concrete mixer after 50 – 70% of the mixing water has been added.
The addition of Sika® ViscoCrete®-2000 to dry aggregate or cement is not recommended.
To achieve optimum performance a minimum wet mixing time, which is depending on the mixing conditions and the mixer performance, of 60 seconds is recommended.
With higher dose rates, water content of the concrete should be reduced to avoid segregation

IMPORTANT CONSIDERATIONS

When using Sika® ViscoCrete®-2000 a mix design must be selected for the local material sources used and trial mixes performed to verify suitability.
If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing.
Sika® ViscoCrete®-2000 should not be added to dry cement.
Before pouring, suitability tests on the fresh concrete must be carried out. Due to the extended workability take special care that formwork is properly installed and secured.
Sika® ViscoCrete® products are not compatible with admixtures based on sulfonated naphthalene or melamine.
When accidental overdosage occurs bleeding and segregation of the concrete and retardation of initial set will be observed.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

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 the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

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

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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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.

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