

PRODUCT DATA SHEET

Sika® ViscoCrete®-4100

HIGH-EFFICIENT SUPERPLASTICIZER POWERED BY VISCOCRETE®

DESCRIPTION

Sika® ViscoCrete®-4100 is the latest development superplasticizer for concrete. It meets the requirements for high range water reducing superplasticizers according to ASTM 494 Type F.

USES

Sika® ViscoCrete®-4100 is a unique multi-purpose superplasticizer that is particularly suitable for the production of ready-mixed concrete. Additionally it provides high water reduction and improved fresh concrete characteristics.

With its outstanding cost/performance Sika® ViscoCrete®-4100 is used for the following:

- A wide range of application where excellent workability is requested
- Concrete with high water reduction
- High efficient concrete applications
- Variable use in different concrete systems with different raw materials

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-4100 is a powerful superplasticizer based on advanced technology which gives the following advantages:

- Strong water reduction, resulting in high density, high strength and reduced permeability
- Less sensitive against variations in aggregates and / or different cement types
- High efficiency even at low dosage rates
- Extended workability in conjunction with subsequent strength development
- Superior plasticizing effect, resulting in improved flow, placing and compaction characteristics
- Reduced shrinkage during curing and reduced creep when hardened
- Provides many opportunities for cost improvement e.g.:
- Cement replacement/reduction
- More economic mix design

Sika® ViscoCrete®-4100 does not contain chloride or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced and prestressed concrete structures.

PRODUCT INFORMATION

Chemical Base	Polycarboxylate ether
Packaging	210 liter Drum, 1000 liter Bulk
Appearance / Colour	Clear to slight yellowish
Shelf Life	12 months from date of production if stored properly
Storage Conditions	Store properly in undamaged, unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight.
Specific Gravity	1.05 ± 0.03 kg/L

APPLICATION INFORMATION

Recommended Dosage	0.6% - 2.0% by weight of total cementitious binder
Consumption / Yield / Dosage (PRINT single line)	0.6% - 2.0% by weight of cement
Dispensing	Sika® ViscoCrete®-4100 is added to the gauging water or added with it into the concrete mixer. To take advantage of the high water reduction, a wet mixing time, which is depending on the mixing conditions and mixer performance, of at least 60 seconds is recommended. To avoid excess water in the concrete, the final dosage must begin only after 2/3 of the wet mixing time. Notes on application / Limitations When using Sika® ViscoCrete®-4100a suitable mix design has to be taken into account and local material sources shall be subjected to trial. Sika® ViscoCrete®-4100 shall not be added to dry cement.

APPLICATION INSTRUCTIONS

Application method / Tools

The standard rules of good concreting practice, concerning production and placing, are to be followed. Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components. Fresh concrete must be cured properly and curing applied as early as possible.

Cleaning of tools

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

BASIS OF PRODUCT DATA

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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