

PRODUCT DATA SHEET

Sika® ViscoCrete® Ultra-420

HIGH RANGE WATER REDUCING/SUPERPLASTICIZING ADMIXTURE WITH ENHANCED WORKABILITY RETENTION PROPERTIES



DESCRIPTION

Sika® ViscoCrete® Ultra-420 is 3rd generation powerful superplasticizer & high range water reducer, based on polycarboxylate polymer technology. It offers high initial workability and prolonged retention.

USES

Sika® ViscoCrete® Ultra-420 is suitable for ready-mix and site batched high quality concrete. Moreover, it offers very high water reduction, high initial slump and prolonged slump retention. It is especially suitable:

- For concrete with high initial workability and retention
- For producing workable concrete under challenging environmental and working conditions (e.g. high temperatures, un-stable concreting schedule)
- For shotcrete

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete® Ultra-420 is a very powerful superplasticizer & water reducer which offers:

- High water reduction in the mix, producing thus dense and high strength concrete
- Workable concrete mixes, resulting in better casting and compaction
- Exceptional flowability maintenance in challenging environments
- High range reduction of water permeability and carbonation
- Sika® ViscoCrete® Ultra-420 does not contain chlorides and is therefore suitable for prestressed and reinforced concrete

APPROVALS / CERTIFICATES

CE-marking and Declaration of Performance as High range water reducing / Superplasticizing admixture (Tables 3.1 & 3.2) & Set retarding / High range water reducing / Super plasticizing admixture (Tables 11.1 & 11.2) according to EN 934-2:2009 based on certificate of factory production control issued by notified factory production control certification body and type testing.

PRODUCT INFORMATION

Composition	Aqueous solution of modified 3rd generation polycarboxylate polymers
Packaging	IBC, drums and containers. Bulk supply on demand.
Appearance / Colour	Liquid, brown
Shelf life	8 months from date of production
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.
Density	~ 1,0 kg/l (at +20 °C)

pH-Value ~ 5,0 (at +20 °C)

Total Chloride Ion Content Free (EN 934.01)

TECHNICAL INFORMATION

Concreting Guidance The standard rules of good concreting practice, concerning production as well as placing, are to be followed. Refer to relevant standards. Fresh concrete must be cured properly.

APPLICATION INFORMATION

Recommended Dosage 0,4 – 1,6% by weight of cement

Compatibility Sika® ViscoCrete® Ultra-420 can be combined with the following Sika products:

- Sika® Plastiment® series
 - Sika® WT-140 L / Sika® WT-200 P
 - Sika® Stabilizer-4R
 - Sika® Visco I-100
 - Sikafume® HR-E / Sikacrete® AR
 - Sikacrete® UCS
 - Sika-Aer® Fine
 - Sika® Ferrogard-901 S
 - Sika® Sigunit® shotcrete accelerators
- Trials are recommended before combining products.

Dispensing Sika® ViscoCrete® Ultra-420 is added to the gauging water at the plant or added on-site into the concrete mixer.

Restrictions

- When using Sika® ViscoCrete® Ultra-420 a suitable concrete mix should be designed and local raw material sources should be tested.
- Sika® ViscoCrete® Ultra-420 should not be added to dry cement.
- Sika® ViscoCrete® Ultra-420 should be added with the mixing water or introduced at the end of the mixing process.
- Before application, suitability tests must be performed.

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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