

PRODUCT DATA SHEET

Sika® ViscoCrete® Ultra-500

POWERFUL SUPERPLASTICIZING CONCRETE ADMIXTURE FOR HIGH DEMANDS OF PROLONGED WORKABILITY



DESCRIPTION

Sika® ViscoCrete® Ultra-500 is 3rd generation powerful superplasticizer based on the polycarboxylate polymer technology and specified for high prolonged workability demands as well as high water reduction.

USES

Sika® ViscoCrete® Ultra-500 is suitable for ready-mix and site batched high performance concrete. Moreover, it offers very high water reduction, high initial slump and prolonged slump retention. It is especially suitable:

- For various types of concrete applications, where concrete must have high initial workability and prolonged maintenance
- For high performance concrete
- For high strength concrete
- For concreting applications under high temperatures and for high distance concrete transportations and/or in cases of need for prolonged concrete workability
- For concrete used in high quality technical projects
- For shotcrete

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete® Ultra-500 is a very powerful superplasticizer which offers:

- Very high water reduction (resulting in high density and high strength concrete)
- Extremely high flowability and plasticity (resulting in easier casting and compaction)
- Exceptional flow ability maintenance in cases of high distance transportations and under high temperatures
- Shrinkage and creep reduction
- High range reduction of water permeability and carbonation

Sika® ViscoCrete® Ultra-500 does not contain chloride and is therefore suitable for prestressed and reinforced concrete.

APPROVALS / CERTIFICATES

High range water reducing / superplasticizing admixture (Tables 3.1 & 3.2) and Set retarding / high range water reducing / super plasticizing admixture (Tables 11.1 & 11.2) according to EN 934.02:2009+A1:2012, Declaration of Performance 48749163, and provided with the CE-mark.

PRODUCT INFORMATION

Chemical base	Aqueous solution of modified polycarboxylate polymers
Packaging	IBC, 210 kg drums, 20 kg containers. Bulk supply on demand.
Appearance / Colour	Liquid, brown
Shelf life	8 months from date of production
Storage conditions	Store properly in undamaged, unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.
Density	~1.07 kg/l (at +20°C)

pH-Value	4.2 – 6.2 (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.
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APPLICATION INFORMATION

Recommended Dosage	0.5 – 1.8% by weight of cement
Compatibility	Sika® ViscoCrete® Ultra-500 can be combined with the following Sika products: - Sika® Plastiment® series - 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-500 is added to the gauging water at the plant or added on-site into the concrete mixer.
Restrictions	<ul style="list-style-type: none"> ▪ When using Sika® ViscoCrete® Ultra-500 a suitable mix design has been taken into account and local material sources should be trialled. ▪ Sika® ViscoCrete® Ultra-500 should not be added to dry cement. ▪ Sika® ViscoCrete® Ultra-500 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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