

PRODUCT DATA SHEET

Sika® ViscoCrete®-20 HE S

HIGH PERFORMANCE SUPERPLASTICIZER FOR PRECAST APPLICATIONS



DESCRIPTION

Sika® ViscoCrete®-20 HE S is a third generation superplasticizer for concrete, especially suitable for precast applications.

USES

Sika® ViscoCrete®-20 HE S is especially suitable for the production of concrete mixes which require high early strength development, powerful water reduction and excellent flowability.

Sika® ViscoCrete®-20 HE S is mainly used for the following applications:

- For production of semi-dry concrete with very low W/C ratio
- For rapid increase of early and final strengths
- For very qualitative concrete
- Fast track concrete
- For high demand job-site concrete
- For SCC (Self Compacting Concrete)

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-20 HE S is a powerful superplasticizer, with the use of which we have the following advantages:

- Exceptional superplasticizing effect, even in semi-dry concrete, which results in improved workability, placement and compaction
- Pronounced increase in the early strength development, resulting in shortening the stripping times
- Extremely powerful water reduction, resulting in high density, high strength and reduced permeability
- Concrete with high resistance against mechanical and chemical attacks and prolonged life time
- Improved shrinkage and creep behaviour
- Enhanced durability of concrete and very satisfactory aesthetic results
- Sika® ViscoCrete®-20 HE S does not contain chlorides or other ingredients that promote corrosion of steel reinforcement. It is therefore suitable for reinforced and prestressed steel.

APPROVALS / CERTIFICATES

High range water reducing / superplasticizing admixture (Tables 3.1 & 3.2) and hardening accelerating admixture (Table 7) according to EN

934.02:2009+A1:2012, Declaration of Performance 34408423, and provided with the CE-mark.

PRODUCT INFORMATION

Chemical base	Aqueous solution of polycarboxylates
Packaging	IBC, 220 kg drums, 20 kg containers Bulk supply on demand
Appearance / Colour	Liquid, pale yellow
Shelf life	8 months from date of production
Storage conditions	Store properly in original, undamaged, unopened, packaging, in dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.

Density	~ 1.08 kg/l (at +20°C)
pH-Value	3.5 – 5.5 (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	0.3- 2.0% by weight of cement
Compatibility	<p>Sika® ViscoCrete®-20 HE S may be combined with the following Sika Products among other:</p> <ul style="list-style-type: none"> - Sika®-1+ / Sika® WT-200 P - Sika® Visco I-100 - Sika-Aer® Fine - Sika® Stabilizer-4R - Sikacrete® UCS - Sika® Ferrogard®-901 S - Sikafume® HR-E / Sikacrete® AR - SikaRapid®-2 - Sika® Antifreeze <p>In all cases trial are recommended combining products.</p>
Dispensing	Sika® ViscoCrete®-20 HE S 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®-20 HE S a suitable mix design has been taken into account and local material sources should be trialled. ▪ Sika® ViscoCrete®-20 HE S should not be added to dry cement. ▪ Sika® ViscoCrete®-20 HE S should be added with the mixing water or introduced at the end of the mixing process. ▪ In case it will be used for SCC production, it must be incorporated in a suitable mix design. ▪ 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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