

# PRODUCT DATA SHEET

## Sika® ViscoCrete®-5500 HS

SPECIAL DEMAND SUPERPLASTICIZING CONCRETE ADMIXTURE



### DESCRIPTION

Sika® ViscoCrete®-5500 HS is an edge technology superplasticizer for concrete.

### USES

Sika® ViscoCrete®-5500 HS serves the need for extremely high reduction of W/C ratio, allowing at the same time high superplasticizing effect and exceptionally cohesive mix. It is used indicatively:

- For concrete mixes with extremely low W/C ratio
- For precast concrete
- For high quality technical projects, such as bridges, harbors, buildings, e.t.c.
- For S.C.C. (Self Compacting Concrete)
- For concrete with high early and final strengths
- For concrete with low water permeability
- For concrete with high durability over time
- For concrete with increased resistance to abrasion and chemical attacks

### CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-5500 HS acts multiply to the cement particles, as well as to the hydration process, offering important benefits to the fresh and hardened state. Some of its characteristics are:

- Possibility for production of high flowability and self-compacting concrete
  - Extremely high water reduction, which results in high density and high strength
  - Exceptional flow ability, which results in the reduction of vibration need for compaction
  - Shrinkage and creep reduction
  - Reduction of water penetration and carbonation
- Sika® ViscoCrete®-5500 HS 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) according to EN 934-02:2009+A1:2012, based on certificate of factory production control issued by notified factory production control certification body and type testing.

### PRODUCT INFORMATION

<b>Chemical base</b>	Aqueous solution of polycarboxylate polymers
<b>Packaging</b>	IBC, 210 kg drums, 20 kg containers Bulk supply upon request
<b>Appearance / Colour</b>	Liquid, light brown
<b>Shelf life</b>	8 months from date of production
<b>Storage conditions</b>	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	~1,0 Kg/l (at +20°C)
pH-Value	3,5 – 5,5 (at +20°C)
Total Chloride Ion Content	Free (EN 934.01)

## TECHNICAL INFORMATION

<b>Concreting Guidance</b>	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

<b>Recommended Dosage</b>	0,2 – 2,0% b.w. of cement
<b>Compatibility</b>	<p>Sika® ViscoCrete®-5500 HS can be combined with the following Sika products:</p> <ul style="list-style-type: none"> <li>▪ Sika® Plastiment® series</li> <li>▪ Sika® WT-140 L / Sika® WT-200 P</li> <li>▪ Sika® Visco I-100</li> <li>▪ Sikacrete® UCS</li> <li>▪ Sika® Stabilizer-4R</li> <li>▪ Sika-Aer® Fine</li> <li>▪ Sika® Ferrogard®-901 S</li> <li>▪ Sikafume® HR-E / Sikacrete® AR</li> </ul> <p>Trials are recommended before combining products.</p>
<b>Dispensing</b>	Sika® ViscoCrete®-5500 HS is added to the gauging water at the plant or added on-site into the concrete mixer.
<b>Restrictions</b>	<ul style="list-style-type: none"> <li>▪ When using Sika® ViscoCrete®-5500 HS a suitable mix design has been taken into account and local material sources should be trialed.</li> <li>▪ If frozen, Sika® ViscoCrete®-5500 HS can be used if left to thaw slowly in room temperature and after extensive mixing.</li> <li>▪ Sika® ViscoCrete®-5500 HS should not be added to dry cement.</li> <li>▪ Sika® ViscoCrete®-5500 HS should be added with the mixing water or introduced at the end of the mixing process.</li> <li>▪ In case it is used for special mixes (e.g. self compacting concrete), the mix in which the product will be incorporated must be appropriately designed. Rules that apply, regarding quality control of the produced mix, must be observed.</li> <li>▪ Before application, suitability tests must be performed.</li> </ul>

## 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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