

# Sika® ViscoCrete®-20 HE

## High performance superplasticiser

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### Product Description

Sika® ViscoCrete®-20 HE is a third generation superplasticiser for concrete and mortar.  
It meets the requirements for superplasticisers according to EN 934-2 and SIA 262 (2003).

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### Uses

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

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

- Precast concrete
- Fast track concrete
- In situ concrete requiring fast stripping time
- Self Compacting Concrete (SCC)

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### Characteristics / Advantages

Sika® ViscoCrete®-20 HE, as a powerful superplasticiser, acts by different mechanisms.

Through surface adsorption and sterical effects separating the binder particles, the following properties are achieved:

- Pronounced increase in the early strength development, resulting in very economic stripping times for precast and in situ concrete
- Extremely powerful water reduction, resulting in high density, high strength and reduced permeability for water etc.
- Excellent plasticising effect, resulting in improved flowability, placing and compacting behaviour.
- Reduced energy cost for steam cured precast elements
- Especially suitable for the production of Self Compacting Concrete (SCC)
- Improved shrinkage and creep behaviour
- Reduced closure times for repairs of roads and runways

Sika® ViscoCrete®-20 HE does not contain chlorides or other ingredients promoting corrosion of steel reinforcement. It is therefore suitable for reinforced and pre-stressed steel.

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## Product Data

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### Form

**Appearance / Colours** Light brownish liquid, clear to slightly cloudy

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**Packaging** Plastic container: 25Litre  
Metal drum: 200Ltre  
IBC: 1000 Litre

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### Storage

**Storage Conditions / Shelf -Life** 12 months from date of production if stored properly in original, unopened packaging , at temperatures between +5°C and +35°C.  
Protect from direct sunlight and frost.

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### Technical Data

**Chemical Base** Aqueous solution of modified polycarboxylates

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**Density** 1.08 kg/l

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**pH Value** 4.3 +/- 0.5

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**Total Chloride Ion Content % w/w** Chloride-free (EN 934-2)

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**Effect on Setting** Non-retarding

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**Effect of Overdosing** Bleeding may occur

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## System Information

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### Application Details

**Consumption / Dosage** Recommended dosage:  
For medium workability: 0.2 - 0.8% by weight of cement  
For concrete of high workability, very low water/cement ration and for self compacting concrete: 1.0 - 2.0% by weight of cement.

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### Application Conditions / Limitations

**Compatibility** Sika® ViscoCrete®-20 HE may by combined with the following Sika products amongst others:

- Sika® Ferrogard®-901
- Sikafume®
- SikaRapid®
- Sika® Stabilizer®-229
- Sika® Retarder®

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Please conduct trials before combining products.

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## Application Instructions

<b>Dispensing</b>	Sika® ViscoCrete®-20 HE is added to the gauging water or added with it into the concrete mixer.
<b>Application Method / Tools</b>	The standard rules of good concreting practice, concerning production as well as placing, are to be followed.  Fresh concrete must be cured properly.
<b>Notes on Application / Limitations</b>	Self compacting concrete: When using Sika® ViscoCrete®-20 HE to produce self compacting concrete, suitable mix design will have to be used.  Frost: If frozen and/or if precipitation has occurred, Sika® ViscoCrete®-20 HE may be used after thawing slowly at room temperature and intensive mixing.

**Notes** 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.

## Health and Safety Information

**Protective Measures** Upon contact with skin, wash off with water and soap.  
  
In case on contact with eyes or mucous membrane, rinse immediately with clean water and seek medical attention without delay.

## Ecology

## Transportation Class

**Important Notes** Residues of material must be removed according to local regulations. Fully cured material must be disposed of as household waste under agreement with the responsible local authorities.  
  
Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data must be obtained from the Material Safety Data Sheet.

## Toxicity

## 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 or access on the Internet under [www.sika.co.za](http://www.sika.co.za).



Sika South Africa (Pty) Ltd  
9 Hocking Place,  
Westmead, 3608  
South Africa

E-mail: [headoffice@za.sika.com](mailto:headoffice@za.sika.com)  
Phone +27 31 792 6500  
Telefax +27 31 700 1760  
[www.sika.co.za](http://www.sika.co.za)

