

## PRODUCT DATA SHEET

# Sika® ViscoCrete®-20 HE

### HIGH RANGE WATER REDUCER / SUPERPLASTICISER

#### DESCRIPTION

Sika® ViscoCrete®-20 HE is a liquid admixture for concrete and mortar which is used as high range water reducer or superplasticiser. Sika® ViscoCrete®-20 HE is designed to work on a combination of electrostatic adsorption and steric repulsion effects allowing solid particles to be effectively dispersed. Therefore a high level of fluidity and plasticising can be reached with a high water reduction which provides many advantages.

#### USES

Production of concrete mixes which require high early strength development, powerful water reduction and improved flowability.

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

#### CHARACTERISTICS / ADVANTAGES

- High water reduction
- High final density and strength properties
- Reduced shrinkage, creep, water permeability, etc
- Improved flowability, placing and compacting behaviour
- Improved surface finish
- Increased early strength development
- Early removal of formwork
- Reduced curing
- Does not contain chlorides
- Suitable for use in reinforced and pre-stressed concrete

#### PRODUCT INFORMATION

<b>Composition</b>	Aqueous solution of modified polycarboxylates
<b>Packaging</b>	<ul style="list-style-type: none"> <li>▪ 1000 litres IBC</li> <li>▪ 200 litres Drum</li> <li>▪ 25 litres Kg</li> </ul>
<b>Appearance / Colour</b>	Light brown liquid, clear to slightly cloudy.
<b>Shelf life</b>	12 months from date of production
<b>Storage conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between 5 °C and 35 °C. Protect from direct sunlight.
<b>Density</b>	~1.07 - 1.11 kg/l at +20 °C
<b>pH-Value</b>	~4..5 ± 1.0

Total chloride ion content ≤ 0.1 M.-%

Equivalent sodium oxide ≤ 2.0 M.-%

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## TECHNICAL INFORMATION

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**Concreting guidance** The standard rules of good concreting practice, concerning production and placing are to be followed.  
Laboratory trials must be carried out before concreting on site, especially when using a new mix design or producing new concrete components.  
Fresh concrete must be cured properly and curing applied as early as possible.

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## APPLICATION INFORMATION

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**Recommended dosage**

- For medium workability: 0.2–0.8 % by weight of cement
- For concrete of high workability, very low water/cement ratio and for self compacting concrete: 1.0–2.0 % by weight of cement

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**Compatibility** Sika® ViscoCrete®-20 HE may be combined with many other Sika products. Trials must always be carried out before combining products in specific mixes. Contact Sika Technical Services for additional information and any specific combinations.

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**Dispensing** Sika® ViscoCrete®-20 HE is added to the gauging water or added with it into the concrete mixer.  
To achieve the optimum performance, a wet mixing time of at least 60 seconds is recommended.  
To avoid excess water in the concrete, the final dosage must begin after 2/3 of the wet mixing time.

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**Restrictions** When using Sika® ViscoCrete®-20 HE a suitable mix design has to be taken into account and local material sources shall be trialled.  
Sika® ViscoCrete®-20 HE shall not be added to dry cement.  
Excessive water addition or overdosing may cause bleeding or segregation.  
When using Sika® ViscoCrete®-20 HE to produce self-compacting concrete, suitable mix design have to be used.

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## BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## 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.

## IMPORTANT CONSIDERATIONS

- Excessive water addition or overdosing may cause bleeding or segregation.
- When using Sika® ViscoCrete®-20 HE a suitable mix design has to be produced and the local material sources must always be trialled.
- If frozen and/or separation of the product has occurred, Sika® ViscoCrete®-20 HE may be used after thawing slowly at room temperature and intensive mixing. Before application, suitability tests must be performed.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

## 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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### PRODUCT DATA SHEET

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