

## PRODUCT DATA SHEET

# Sika® ViscoCrete®-20 HE

### High Range Water Reducer Admixture

#### DESCRIPTION

Sika® ViscoCrete®-20 HE is a third generation super-plasticiser designed for the production of concrete with high early strength characteristics. The special formulation of Sika® ViscoCrete®-20 HE optimises the dispersion of the binder and at the same time improves the concrete consistency and cohesion.

#### 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

Sika® ViscoCrete®-20 HE is a high early strength super-plasticiser, which through surface absorption and sterical effects, the following properties can be achieved:

- Promote high density and impermeable concrete through extreme high water reduction.
- Improves workability and finishability.
- Improves shrinkage and creep behaviour.
- Pronounced increase in the early strength development and set times.
- Higher ultimate strengths.
- Increases the durability of the concrete.
- Improved flowability, placing and compacting behaviour, suitable for the production of self compacting concrete.
- Early removal of formwork.
- Does not contain chlorides.
- Suitable for use in reinforced and pre-stressed concrete.

#### APPROVALS / CERTIFICATES

Sika® ViscoCrete®-20 HE meets and exceeds all requirements of Australian Standard 1478.1-2000 for High Range Water Reducer Type (HWR).

#### PRODUCT INFORMATION

<b>Composition</b>	Aqueous solution of modified polycarboxylates
<b>Packaging</b>	Bulk supply, 1000 litre IBC, 205 litre drum, 10 litre container.
<b>Shelf life</b>	Stored at temperature between 5°C and 35°C in unopened original containers protected from direct sunlight and frost, shelf life is one (1) year.
<b>Storage conditions</b>	Sika® ViscoCrete®-20 HE must be stored in dry conditions at temperatures between +5 °C and +35 °C, protected from direct sunlight.
<b>Appearance and colour</b>	Light brown liquid
<b>Density</b>	~1.07 g/cm <sup>3</sup>

#### TECHNICAL INFORMATION

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## APPLICATION INFORMATION

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<b>Recommended dosage</b>	Dosage is 200 ml to 1000 ml per 100kg of total cementitious material. Optimum dosage should be determined by site trials.
<b>Dispensing</b>	Sika® ViscoCrete®-20 HE is added to the initial batching water. For optimum utilisation of the high water reduction we recommend thorough mixing at a minimal wet mixing time of 60 seconds per cubic meter. The addition of the remaining gauging water, to fine tune concrete consistency, should only be started after 2/3 of the wet mixing time, to avoid surplus water in the concrete.
<b>Compatibility</b>	Sika® ViscoCrete®-20 HE may be combined with many other Sika Concrete Admixtures, except Sikament NN. 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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## 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.

## IMPORTANT CONSIDERATIONS

- Excessive water addition or overdosing may cause bleeding or segregation.
- Due to Sika® ViscoCrete®-20 HE high early characteristics, slump life is limited and proper care and timing during placement should be taken.
- As with all concretes it is essential to protect mixes containing Sika® ViscoCrete®-20 HE from water evaporation during the crucial early age period. We recommend the use of Sika Film or Antisol curing membranes for this purpose.
- 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.

## 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.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

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## 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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