

# PRODUCT DATA SHEET

## Sika<sup>®</sup> ViscoCrete<sup>®</sup>-1050 HE

### HIGH PERFORMANCE SUPERPLASTICISER

#### DESCRIPTION

Sika<sup>®</sup> ViscoCrete<sup>®</sup>-1050 HE is a third generation superplasticiser for concrete and mortar. It is designed particularly for production of precast concrete that demands high early strength and high ultimate strength.

#### USES

Sika<sup>®</sup> ViscoCrete<sup>®</sup>-1050 HE is a unique multi purpose superplasticiser that is particularly suitable for the production of precast concrete. Additionally it provides ultra high water reduction, high early strength and excellent flow characteristics.

With its outstanding combination of good workability and early strength development Sika<sup>®</sup> ViscoCrete<sup>®</sup>-1050 HE is used for the following :

- A wide range of applications where good early strength development are required.
- Concrete with ultra high water reduction (up to 30%).
- High performance concretes
- Self Compacting Concrete (SCC)

#### CHARACTERISTICS / ADVANTAGES

Sika<sup>®</sup> ViscoCrete<sup>®</sup>-1050 HE is a powerful superplasticiser based on advanced technology which gives the following advantages :

- High water reduction, resulting in high density, high strength and reduced permeability.
- Extended workability in conjunction with subsequent fast strength development.
- Excellent plasticising effect, resulting in improved flow, placing and compaction characteristics.
- Reduced shrinkage during curing and reduced creep when hardened.
- Provides many opportunities for cost improvement e.g.: Cement reduction, More economic mix design, Reduced energy costs for steam cured precast elements, Reduction of potential claims etc.

Sika<sup>®</sup> ViscoCrete<sup>®</sup>-1050 HE does not contain chlorides or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced and prestressed concrete structures.

#### PRODUCT INFORMATION

<b>Chemical base</b>	Modified polycarboxylate in water
<b>Packaging</b>	200 L drums (non returnable) 1 000 litre bulk on request
<b>Appearance / Colour</b>	Liquid / Turbid to light yellowish
<b>Shelf life</b>	12 months from date of production if stored properly in undamaged unopened, original sealed packaging
<b>Storage conditions</b>	Store in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight and frost.
<b>Density</b>	1.070 ± 0.01 kg/L (at +20 °C)
<b>Total Chloride Ion Content</b>	< 0.1 % w/w

## 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 before concreting on site are strongly recommended when using a new mix design or producing new concrete components.  
Fresh concrete must be cured properly and 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 with 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®-1050 HE may be combined with the following products:  
Plastiment® P121R  
Plastiment® VZ  
Sika® Fume  
SikaFibre®  
Do not use viscocrete / viscoflow series combined with sikament series.  
To produce flowing and / or self-compacting concrete, special concrete mix design is required.  
Pre-trials are recommended and mandatory if combinations with the above products are required.  
Please consult to our Technical Service Department.

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## APPLICATION INSTRUCTIONS

### DISPENSING

Sika® ViscoCrete®-1050 HE is added to the gauging water or added with it into the concrete mixer.  
To take advantage of the high water reduction, a wet mixing time of at least 60 seconds is recommended.

### LIMITATIONS

Excessive water addition or overdosing may cause bleeding or segregation.

Frost:

If frozen and / or if precipitation has occurred, Sika® ViscoCrete®-1050 HE may be used after thawing slowly at room temperature followed by intensive remixing.

### 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.

## LOCAL RESTRICTIONS

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

## 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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### Product Data Sheet

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