

## PRODUCT DATA SHEET

# Sika® ViscoCrete®-1316 Hi-Tech

High range water reducing & superplasticizing admixture

### DESCRIPTION

Sika® ViscoCrete®-1316 Hi-Tech is a High range water reducing & superplasticizing admixture for Concrete & Mortar utilizing Sika's 'ViscoCrete®' polycarboxylate polymer technology ( **3rd Generation** ) .

### USES

1. Ultra High-performance Concrete (UHPC).
2. Self Compacted Concrete (SCC).
3. Wet Precast Concrete.
4. Pumped Concrete.
5. Durable Concrete.

### CHARACTERISTICS / ADVANTAGES

1. High water reduction, resulting in higher density, higher strength and reduced permeability.
2. Easier and faster pumping of concrete.
3. Increased workability and easier placeability.
4. Allows contractors to finish the concrete early.
5. Increased concrete durability and uniformity.
6. Reduced shrinkage and cracking.
7. Reduced rate of carbonation of the Concrete.
8. NO need for vibration , thus NO noise pollution.
9. Extended slump retention.

### PRODUCT INFORMATION

|                              |  |
|------------------------------|--|
| <b>Composition</b>           | Aqueous solution of modified <b>polycarboxylates</b>   |
| <b>Packaging</b>             | 1000 kg IBC<br>20 kg Pail  |
| <b>Shelf life</b>            | 12 months from date of production if stored properly in undamaged un-opened, original sealed packaging.  |
| <b>Storage conditions</b>    | In dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight. It requires recirculation when held in storage for extended periods. |
| <b>Appearance and colour</b> | Light brownish   |
| <b>Specific gravity</b>      | 1.100 ± ( 0.02 ) g/cm <sup>3</sup>   |
| <b>pH-Value</b>              | 4 - 6  |

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## TECHNICAL INFORMATION

### Concreting guidance

The standard rules of good concreting practice, concerning production and placing, are to be followed. Laboratory trials shall 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.

## APPLICATION INFORMATION

### Recommended dosage

**( 0.3 % - 2 % ) by weight of total cementitious materials.**

### Dispensing

Sika® ViscoCrete®-1316 Hi-Tech 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, which is depending on the mixing conditions and mixer performance, of at least 3 mins. per cubic meter after the admixture addition is recommended. Sika® ViscoCrete®-1316 Hi-Tech shall not be added to dry cement.

### Compatibility

Sika® ViscoCrete®-1316 Hi-Tech can be used in conjunction with :

1. Sika® Aer
2. Sika ViscoFlow®
3. Sika® ViscoCrete®
4. SikaPlast®
5. Sika® Retarder IQ
6. SikaFiber®
7. Sika® Plastocrete® N IQ

All admixtures must be added separately. Trials are always recommended before combining products . For additional information, please contact Sika technical personnel.

## 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

1. A suitable mix design has to be taken into account.
2. Do not use Sika® ViscoCrete®-1316 Hi-Tech with naphthalene based admixtures.
3. Over dosage of Sika® ViscoCrete®-1316 Hi-Tech with excess water will cause :
  - Increase in air entrainment.
  - Bleeding & Segregation.
  - Extend Initial & Final setting time.

## 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.

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## 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.

## 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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