

## PRODUCT DATA SHEET

# Sika® ViscoCrete®-1003 Ease

(formerly MasterEase® 1003)

New superplasticizer technology with enhanced rheological performance to produce high strength concrete

### DESCRIPTION

Sika® ViscoCrete®-1003 Ease is a superplasticizer, high range water reducer, especially engineered for ready-mix rheoplastic concrete having fluid consistence and self-compacting concrete, to impart exceptional rheological properties and having a very high workability retention, in all weather conditions. It improves considerably the placing and finishing of concretes and enhances the ease of concrete pumping for all construction activities. The fresh concrete shows no segregation even at low water cement ratio and, consequently, high early and long-term strengths. Sika® ViscoCrete®-1003 Ease is free of chloride and has been formulated to comply with the requirements of ASTM C494 for Types A and F admixtures.

### USES

Sika® ViscoCrete®-1003 Ease is especially beneficial for the production of high-quality ready-mix concrete particularly when high water reductions are required in combination with a requirement for an extended period of workability e.g long-distance deliveries or deliveries with extended discharge times. Sika® ViscoCrete®-1003 Ease is designed to exhibit extended workability retention. The enhanced rheology of the resultant concrete allows low water cement ratios to be achieved without the traditionally accepted increased levels of stickiness. This is particularly beneficial in areas of heavily congested reinforcement. It can be used for the realization and achievement of the following:

- Ready-mix and site mix concrete
- Superior concrete pumping
- Reduction of concrete waste
- Ease of compacting and finishing concrete
- High performance and ultra-high strength concrete
- Concrete for low environmental impact and high in

- mineral additions
- Architectural concrete.

### CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-1003 Ease delivers many advantages in the fresh concrete on hardened concrete. At fresh state, optimizing the rheology:

- Decrease in the viscosity of concretes at constant W/C
- Improved pumping (lower pressure and longer distance).
- Better response to vibration.
- Greater ease of pumping.
- Superior finishing, floating and smoothing operations.
- Excellent flexibility, mobility and flow of self-compacting concrete.

Reduction possible to the W/C ratio without affecting the viscosity of concretes.

- New windows for technical and economic optimization of concrete mix designs (addition and types of binder, choice of aggregates).
- High strength and resistance to segregation.
- Workability retention up to 120 minutes with minimum of retardation.
- Good compatibility with all types of cement and mineral additions.

In the cured state, improvement of sustainability

- Excellent early and late compressive strength
- Improvement of quality of surface finishes
- As part of a reduction of W/C
  - Increased mechanical resistances
  - Decreased porosity and permeability
  - Decreased shrinkage and cracking
  - Enhanced durability

## PRODUCT INFORMATION

<b>Packaging</b>	<ul style="list-style-type: none"><li>▪ 1000 L IBC tank</li><li>▪ Bulk delivery</li></ul>
<b>Shelf Life</b>	12 months from date of production
<b>Storage Conditions</b>	Store at a temperature above 0 °C and in tightly sealed original containers. If frozen, thaw it and completely reconstitute by mild agitation. Do not use compressed air.

## SYSTEM INFORMATION

<b>Compatibility</b>	<p>Sika® ViscoCrete®-1003 Ease is compatible with all cements meeting recognised international standards.</p> <p>Sika® ViscoCrete®-1003 Ease is compatible and recommended for use with viscosity modifying agents to produce SCC.</p> <p>Sika® ViscoCrete®-1003 Ease is not compatible with the Sikament® RB superplasticisers.</p>
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## APPLICATION INFORMATION

<b>Recommended Dosage</b>	<p>Dosage of Sika® ViscoCrete®-1003 Ease depends on the mix design, ambient conditions and degree of water reduction and workability required. Sika® ViscoCrete®-1003 Ease is dispensed at a rate of 1000 ml to 1800 ml per 100 kg of cementitious material. Other dosages may also be used depending on the specific working conditions. Trial mixes should be made with job materials to determine the optimum dosage required for a specified job requirement.</p> <p>If required consult our Technical Services Department for advice.</p>
<b>Dispensing</b>	<p>Sika® ViscoCrete®-1003 Ease is a ready-to-use admixture that is added to the concrete at the time of batching.</p> <p>The maximum effect is achieved when Sika® ViscoCrete®-1003 Ease is added after the addition of 50 % to 70 % of water. Sika® ViscoCrete®-1003 Ease must not be added to the dry materials. A separate dispenser and feed line must be used.</p>

## 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.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

**Sika Kimia Sdn. Bhd.**  
Lot 689, Nilai Industrial Estate,  
71800 Nilai, Negeri Sembilan D.K.  
Malaysia  
Phone: +606-7991762  
e-mail: info@my.sika.com  
Website: www.sika.com.my



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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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