

## PRODUCT DATA SHEET

# Sika® ViscoCrete®-8166

### ULTRA HIGH RANGE WATER REDUCER WITH HARDENING ACCELERATION EFFECT CONCRETE ADMIXTURE

#### DESCRIPTION

Sika® ViscoCrete®-8166 is a 3rd generation polymer based high performance superplasticizer with hardening acceleration effect for concrete.

Sika® ViscoCrete®-8166 meets requirement of ASTM C494 type F

#### USES

Sika® ViscoCrete®-8166 is mainly suitable for the manufacture of concrete in precast factories and other in-situ precast concrete elements.

Sika® ViscoCrete®-8166 is used for the following types of concrete:

- High-strength/High performance concrete spun pile in precast industry.
- Concrete with extreme water reduction.
- Soft consistency concrete with extended working time, suitable for both small and large spun piles.

#### CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-8166 combines different modes of actions. By adsorption on the surface of the fines and keeping them apart while the hydration is in progress, Sika® ViscoCrete®-8166 effects the following concrete properties:

- Extremely high water reduction (enhanced impermeability & strength of concrete produced)
- Faster development of early strength. Can reduce the time of steam curing process for getting early strength
- Workability can be maintained up to 90 minutes (depending on cement type, temperature and mix design)
- Improved creep and shrinkage resistance characteristics

#### PRODUCT INFORMATION

|                     |   |
|---------------------|---|
| Chemical base       | Modified Poly carboxylate in water  |
| Packaging           | 200/1000 litres   |
| Shelf life          | 12 months if stored properly in original unopened packaging   |
| Storage conditions  | Stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +30 °C |
| Appearance / Colour | Liquid/ brown colour  |
| Density             | 1.076 – 1.116 kg/L (at 20°C)  |

#### TECHNICAL INFORMATION

##### Concreting Guidance

**Concrete placing:** With the use of Sika® ViscoCrete®-8166, concrete of highest quality is being produced, however state of the art concrete technology, such as mixing, placing vibrating and curing must be respected and

applied

**Curing:** Effective measures for concrete curing must be followed

### Specific Advice

Sika® ViscoCrete®-8166 is added to the gauging water prior to its addition to the dry mix or added separately to the wetted concrete mix. For optimum utilization of the ultra-high range water reducer we recommend a minimum wet mixing time of 60 seconds. When adding the balance of the batching water to adjust concrete consistency this should be done after a minimum of 2/3 of the wet mixing time to avoid surplus water in the concrete.

## APPLICATION INFORMATION

### Recommended Dosage

0.5 – 2.0 ltr per 100 kg of cement/binder

Typical dosage

- For normal concrete 0.6 - 0.9 ltr per 100 kg of cement/binder
- For spun pile 0.8 – 1.2 ltr per 100 kg of cement/binder

### Compatibility

Sika® ViscoCrete®-8166 may be combined with all Sikament, Sika® Aer, Sika® Pump, Sikacrete® PP1 products, but must be added separately to the mix and not pre-mixed prior its addition  
Sika® ViscoCrete®-8166 is compatible with all Portland Cement types

## 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 CONSIDERATION

Overdosing will result in increased workability and setting time of the Concrete, however, provided that curing is effective, ultimate concrete strength and properties will not be affected

Accurate dispensing equipment can be supplied by Sika Limited (Vietnam)

Use an appropriate concrete mixer and do not mix by hand.

Trial mixes are recommended to establish exact dosage rates required to suit individual requirements. Please contact Sika Technical Department for further assistance.

## ECOLOGY, HEALTH AND SAFETY

**Protective Measures:** Avoid prolonged contact with skin. Wash off thoroughly with soap water.

In case of contact with eyes or mouth, rinse immediately with clean warm water and seek medical attention without delay.

Avoid contact with food stuff and utensils

**Ecology/ Waste disposal:** Do not dispose of into water or soil, but according to local regulations

**Transportation class:** Non-hazardous

**Toxicity:** Non-toxic

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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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