

PRODUCT DATA SHEET

Sika® ViscoCrete®-8100

Ultra high range water reducer with hardening acceleration effect concrete admixture

DESCRIPTION

Sika® ViscoCrete®-8100 is a 3rd generation polymer based high performance superplasticizer with hardening acceleration effect for concrete.

Sika® ViscoCrete®-8100 meets requirement of ASTM C494 type F.

USES

Sika® ViscoCrete®-8100 is mainly suitable for the manufacture of concrete in precast factories and other in-situ precast concrete elements.

Sika® ViscoCrete®-8100 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®-8100 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®-8100 effects the following concrete properties:

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

PRODUCT INFORMATION

Chemical base	Modified polycarboxylate in water
Packaging	5 / 25 / 200 L drum
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 / brownish colour
Density	1.085–1.105 kg/l

TECHNICAL INFORMATION

Concreting Guidance

Concrete placing: With the use of Sika® ViscoCrete®-8100, 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®-8100 is added to the gauging water prior to its addition to the dry mix or added separately to the wetted concrete mix. For optimum utilisation 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 L per 100 kg of cement Typical dosage: For normal concrete: 0.6–0.9 L per 100 kg of cement For spun pile: 0.8–1.10 L per 100 kg of cement
Compatibility	Sika® ViscoCrete®-8100 may be combined with all Sikament®, Sika® Aer, Sika® Pump, Sikacrete® PP-1 products, but must be added separately to the mix and not pre-mixed prior its addition.

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

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.

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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