

PRODUCT DATA SHEET

Sika® ViscoCrete®-90 HE

HIGH PERFORMANCE SUPERPLASTICIZER

DESCRIPTION

Sika® ViscoCrete®-90 HE is a third generation accelerated superplasticizer for the precast industry.

USES

Sika® ViscoCrete®-90 HE is especially suitable for the production of concrete mixes which require high early strength development, powerful water reduction and excellent flowability.

Sika® ViscoCrete®-90 HE is mainly used for the following applications:

- Precast concrete
- Fast track concrete
- In situ concrete requiring fast stripping time
- Self Compacting Concrete (SCC)

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-90 HE as a powerful superplasticizer acts by different mechanisms.

Through surface adsorption and sterical effects separating the binder particles the following properties are achieved:

- Pronounced increase in the early strength development, resulting in very economic stripping times for pre-cast and in situ concrete
 - Extremely powerful water reduction, resulting in high density, high strengths and reduced water permeability etc.
 - Excellent plasticizing effect, resulting in improved flowability, placing and compacting behavior
 - Reduced energy cost for steam cured pre-cast elements
 - Especially suitable for the production of Self Compacting Concrete (SCC) Improved shrinkage and creep behavior
 - Reduced closure times for repairs of roads and runway
- Sika® ViscoCrete®-90 HE does not contain chlorides or other ingredients which promote the corrosion of steel reinforcement. It is therefore suitable for reinforced and pre-stressed steel.

APPROVALS / STANDARDS

It meets the requirements for superplasticisers according to EN 934-2 and SIA 262 (2003).

PRODUCT INFORMATION

Chemical Base	Aqueous solution of modified polycarboxylates
Packaging	200 lt. Drums and 1000 lt. IBC
Appearance / Colour	Light yellowish liquid, clear to slightly cloudy
Shelf Life	12 months minimum from date of production if stored properly in original unopened packaging
Storage Conditions	Store in a dry area between 5°C and 35°C. Protect from direct sunlight
Density	1,07 kg/l
pH-Value	5,5 ± 1,0

APPLICATION INFORMATION

Recommended Dosage	For medium workability: 0.2 - 0.8% by weight of cement For concrete of high workability, very low water/cement ration and for self compacting concrete: 1.0 - 2.0% by weight of cement. It is advisable to carry out trial mixes to establish the correct dosage.
Compatibility	This admixture is compatible with other admixtures of the Sika line, therefore it is suggested to contact the Sika Technical Department.
Dispensing	Sika® ViscoCrete®-90 HE it is added to the mixing water or directly into the fresh concrete mixture. Never add Sika® ViscoCrete®-90 HE with dry concrete components (cement and aggregates)

LIMITATIONS

When accidental overdosing occurs (within reason), apart from retardation of the initial set and increased bleeding, no detrimental effect will take place. When using Sika® ViscoCrete®-90 HE to produce Self Compacting Concrete, a suitable mix-design has to be used.

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.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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 Material Safety Data Sheet 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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