

PRODUCT DATA SHEET

Sika® ViscoCrete®-50 PCE

High range water reducer/High Performance Superplasticizer

DESCRIPTION

Sika® ViscoCrete®-50 PCE is a third generation very high range water reducer, high performance superplasticizer for concrete and mortar.

USES

Sika® ViscoCrete®-50 PCE is specially suitable for the production of concrete mixes which require high early strength development, powerful water reduction and excellent flowability.

Sika® ViscoCrete®-50 PCE 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®-50 PCE as a powerful superplasticizer acts by different mechanism. Through surface adsorption and sterical effects separating the binder particles the following properties are achieved:

- Pronounced increased in the early strength development, resulting in very economic stripping times for precast and in situ concrete
- Extremely powerful water reduction, resulting in high density, high strength and reduced permeability for water etc.
- Excellent plasticizing effect resulting in improved flowability, placing and compacting behaviour
- Reduced energy cost for steam cured precast elements
- Suitable for the production of Self Compacting Concrete (SCC)
- Reduction in shrinkage and creep behavior
- Sika® ViscoCrete®-50 PCE does not contain chlorides or other ingredients promoting corrosion of steel reinforcement.

APPROVALS / STANDARDS

IS 9103, ASTM C494, EN 934-2 and SIA 262

PRODUCT INFORMATION

Chemical base	Polycarboxylate Ether
Packaging	255 Kg in HDPE barrels/1000kg IBC/ Bulk supply
Shelf life	12 months from date of production if stored properly in undamaged unopened, original sealed packaging.
Storage conditions	Store in dry conditions at temperatures between +10°C and +40°C. Protect from direct sunlight and frost.
Appearance / Colour	Clear colourless liquid
Density	~1.11 kg/l at 25°C
pH-value	~ 3.9

APPLICATION INFORMATION

Recommended Dosage	Optimum dosage of Sika® ViscoCrete®-50 PCE should be determined by site trials. Recommended dosage: 0.2% – 2.0% by weight of cementitious. A higher dosage might be used if agreed by client or consultant. Stir well before use.
Dispensing	Sika® ViscoCrete®-50 PCE can be added into the mixing water or directly into the concrete mixer after 50% – 70% of the mixing water has been added. The addition of Sika® ViscoCrete®-50 PCE to dry aggregate or cement is not recommended. To achieve optimum performance a minimum wet mixing time, which is depending on the mixing conditions and the mixer performance, of 60 seconds is recommended.
Compatibility	Sika® ViscoCrete®-50 PCE may be combined with many other Sika® Products. Compatible with all types of cements and cementitious materials. Important: Always conduct trials before combining products in specific mixes and contact our Technical Service Department for information about specific combinations.

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

Excessive water addition or overdosing may cause bleeding or segregation.
If frozen and / or if precipitation has occurred, Sika® ViscoCrete®-50 PCE may be used after thawing slowly at room temperature and after intensive mixing.

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.

MAINTENANCE

CLEANING

Clean all tools and application equipment with water immediately after use.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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.

Sika India Pvt. Ltd.
620, Diamond Harbour Road
Commercial Complex II
Kolkata - 700 034
West Bengal, India

Contact:
Phone: +91 33 2447 2448
Fax: +91 33 2397 8688
info.india@in.sika.com
www.sika.in



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