

PRODUCT DATA SHEET

Sika® ViscoCrete®-649 PC

High Range Water-Reducing Concrete Admixture

DESCRIPTION

Sika® ViscoCrete®-649 PC is a highly effective water-reducing agent and superplasticizer based on polycarboxylate ether (PCE) technology for promoting accelerated hardening, free flowing concrete and good slump retention.

USES

Sika® ViscoCrete®-649 PC as a superplasticizer for flow concrete in:

- Floor slabs
- Foundations
- Slender components with packed reinforcement
- Walls and columns
- Beams and ceilings

Sika® ViscoCrete®-649 PC as a water-reducer for manufacture:

- Pre-cast concrete elements
- Bridges and cantilever structures
- Pre-stressed concrete
- Area of concrete where formwork must be removed quickly or early loading applied

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-649 PC provides the following properties :

As a Superplasticizer

- Substantial improvement in workability without increased water or the risk of segregation
- Normal set without retardation, even when over-dosed
- Improved density and surface finish

As a Water Reducer

- Up to 35% water reduction
- 40% increase in 28 days strengths
- High strengths after 8 hours
- Increased frost-resistance
- Increased watertightness

APPROVALS / CERTIFICATES

Complies with ASTM C 494 Type F

PRODUCT INFORMATION

Composition	Aqueous solution of modified polycarboxylates
Packaging	200 l / drum 1,000 l / tote or bulk
Shelf life	12 months from the date of production If stored properly in undamaged, original, sealed packaging
Storage conditions	Store at temperatures between +5°C and +40°C. Protect from direct sunlight and frost.
Appearance and colour	Light Brown liquid
Density	1.025 – 1.045 kg/L (at temperature 25°C)
pH-Value	3.0 – 4.5

APPLICATION INFORMATION

Recommended dosage	600 - 3,000 cc. per 100 kg. of cement weight. Exact dosage rates are dependent on the type of effect sought, quality of cement and aggregates, water/cement ratio and ambient temperature. Therefore, in many cases it is advisable to carry out trial mixes. Sika® ViscoCrete®-649 PC is compatible with all types of Portland Cement, including S.R.C type and Hydraulic Cement.
Dispensing	Sika® ViscoCrete®-649 PC can be added separately to the freshly mixed concrete or directly to the mixing water prior to its addition to the aggregates. When added separately to the freshly mixed concrete, further mixing should take place for at least one minute per cubic meter.

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

Accidental overdosing of Sika® ViscoCrete®-649 PC may cause segregation. In this case, it is advisable to prolong mixing time until concrete become normal.

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.

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.

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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