BUILDING TRUST

PRODUCT DATA SHEET

Sika® ViscoCrete®-180 TH

High Performance Superplasticizer

DESCRIPTION

Sika® ViscoCrete®-180 TH is a third generation superplasticizer for concrete and mortar.

USES

Sika® ViscoCrete®-180 TH is especially suitable for the production of concrete mixes which require high early strength development, powerful water reduction and improved flowability.

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

FEATURES

Sika® ViscoCrete®-180 TH as a powerful superplasticizer acts through several different mechanisms including surface adsorption and sterical effects separating the binder particles.

- Pronounced increase 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.
- Superior plasticising effect, resulting in improved flowability, placing and compacting behaviour.
- Reduced energy costs for steam cured precast elements
- Especially suitable for the production of Self Compacting Concrete (SCC) Improved shrinkage and creep behaviour
- Reduced closure times for repairs to roads and runways

Sika® ViscoCrete®-180 TH does not contain chlorides or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced and prestressed concrete structures.

CERTIFICATES AND TEST REPORTS

Complies with ASTM C 494

PRODUCT INFORMATION

Composition	Aqueous solution of modified polycarboxylates
Packaging	200 L/ drums
Appearance and colour	Light brownish liquid, clear to slightly cloudy
Shelf life	12 months from date of production if stored properly in undamaged, original, sealed packaging.
Storage conditions	Store at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.
Density	1.030 - 1.050 kg/l (at +25°C)
pH-Value	3.5 - 5.5 approx.

APPLICATION INFORMATION

Recommended dosage	▪ For medium workability: 0.2 - 0.8% by weight of cement. ▪ For high workability, very low water/cement ration and for self compacting concrete: 1.0 - 2.0% by weight of cement.
Compatibility	Sika® ViscoCrete®-180 TH is compatible with all types of Portland Cement, including S.R.C. type and Hydraulic Cement and many other Sika products. Always conduct trials before combining products in specific mixes and contact our Technical Service Department for information and advice about any 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

- When using Sika® ViscoCrete®-180 TH a suitable mix design has to be taken into account and local material sources shall be trialled.
- Sika® ViscoCrete®-180 TH shall not be added to dry cement.
- Excessive water addition or overdosing may cause bleeding or segregation.
- When using Sika® ViscoCrete®-180 TH to produce self compacting concrete, suitable mix design have to be used.
- If frozen and/or if precipitation has occurred, Sika® ViscoCrete®-180 TH may be used after thawing slowly at room temperature and 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.

APPLICATION INSTRUCTIONS

APPLICATION METHOD / TOOLS

- The standard rules of good concreting practice, concerning production and placing, are to be followed
- Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components.
- Fresh concrete must be cured properly and curing applied as early as possible.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

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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