

PRODUCT DATA SHEET

Sika® ViscoCrete®-180

3rd generation superplasticizer - High Range Water Reducer

DESCRIPTION

Sika® ViscoCrete®-180 is a third generation superplasticizer for concrete and mortar. It meets the requirements for superplasticizers according to BS 5075 pt 3.

USES

Sika® ViscoCrete®-180 is suitable for the production of site mixed as well as ready-mix concrete.

Sika® ViscoCrete®-180 is used for concrete with extended transportation or placing time.

Sika® ViscoCrete®-180 facilitates extreme water reduction, excellent flow properties, optimal cohesion and highest self compaction behaviour.

Sika® ViscoCrete®-180 is used for the following types of concrete:

- Self compacting concrete (S.C.C.)
- Hot weather concrete and concrete with extended transportation - or placing time
- Concrete with highest water reduction (up to 30%)
- High strength concrete

High water reduction and excellent flowability have a positive influence on the above mentioned applications.

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-180 acts by different mechanisms. Through surface absorption and sterical separation effect on the cement particles, in parallel to the hydration process, the following properties are obtained:

- Strong self compacting behaviour, therefore suitable for the production of self compacting concrete (S.C.C.)
- Extremely high water reduction (resulting in high density and strengths)
- Excellent flowability (resulting in highly reduced placing and compacting efforts)
- Improved shrinkage- and creep behaviour
- Reduced rate of carbonation of the concrete

Sika® ViscoCrete®-180 does not contain chloride or other steel corrosion promoting ingredients. It may therefore be used without any restrictions for reinforced- and prestressed-concrete construction.

PRODUCT INFORMATION

Chemical Base	Polycarboxylic Polyether Type Polymer
Packaging	200 Litre Drum (Non-Returnable) 1000 Litre IBC's
Appearance / Colour	Whitish colour
Shelf Life	15 months from date of production if stored properly in undamaged unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +35°C.
Storage Conditions	Protect from direct sunlight and frost.
Density	Specific Density: 1.060 ± 0.02 kg/ltr (at 25°C)

pH-Value

Recommended Dosage

- For soft plastic concrete: 0.3 – 1.1% by weight of cement
- For flowing and self compacting concrete (S.C.C.): 1.0 - 3.0% by weight of cement

Compatibility

Sika® ViscoCrete®-180 may be combined with the following Sika products:

- SikaPump®
- SikaRapid®
- Sika® FerroGard®-901 MY
- SikaFume®
- Sika® Retarder
- SikaTard®

Important:

Always conduct trials before combining 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

Sika® ViscoCrete®-180 is also used to produce flowing and self compacting.

Frost:

If frozen and/or if precipitation has occurred, Sika® ViscoCrete®-180 may be used after thawing slowly at room temperature followed by intensive remixing.

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

DISPENSING

Sika® ViscoCrete®-180 is added to the gauging water or simultaneously with it poured into the concrete mixer. For optimum utilisation of the high water reduction we recommend thorough mixing at a minimal wet mixing of 60 seconds.

The addition of the remaining gauging water - to fine tune concrete consistency - may only be started after 2/3 of the wet mixing time, to avoid surplus water in the concrete.

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.

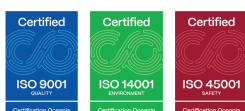
Phone: +65 637648

Phone: +65 6861 0632

Fax: +65 6862 3915

Email: sales@sg.sika.com

www.sika.com.sg



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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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