BUILDING TRUST

PRODUCT DATA SHEET

Sika® ViscoCrete®-5520 W

Third generation mid-high range superplasticizer, designed for use in the production of winter concrete





DESCRIPTION

Sika® ViscoCrete®-5520 W is a third generation midhigh range superplasticizer for winter concrete and mortar.

USES

Sika® ViscoCrete®-5520 W is suitable for the production of site mixed as well as ready-mix concrete. Sika® ViscoCrete®-5520 W is used for concrete with extended transportation of placing time.

Sika® ViscoCrete®-5520 W facilitates extreme water reduction, excellent flow properties, optimal cohesion and highest self compacting behaviour.

Sika® ViscoCrete®-5520 W is mainly used for the following types of concrete:

- Self compacting concrete (S.C.C) for grade 30 MPa and above
- Cold weather concrete and concrete with extended transportation or placing time, typically 1+ hours slump retention
- High strength concrete (50 MPa and above)
 High water reduction and excellent workability have a
 positive influence on the above mentioned applications.

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-5520 W acts by different mechanisms. Through surface absorption and sterical separation effect on the cement particles, in parallel to the hydration on 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®-5520 W does not contain chloride or other steel corrosion promoting ingredients. It may therefore be used without any restriction for reinforced and prestressed concrete construction.

APPROVALS / CERTIFICATES

Conforms to the requirements of MNS ASTM C494C/494M:2011.

PRODUCT INFORMATION

Composition	Polycarboxylic polyether type polymer
Packaging	1000 kg IBC container
Shelf life	12 months from date of production
Storage conditions	Should be stored properly in undamaged unopened, original sealed packaging in dry conditions at temperatures between +5°C and +35°C. Protected from direct sunlight and frost. In case of long storage mix before.
Appearance and colour	Pink colour liquid

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Density	~ 1.10 ± 0.02 kg/L
pH-Value	3.0 - 6.0 (at 20° C)
Total chloride ion content	Free (EN 934.01)
Concreting guidance	The standard rules of good concreting practice, concerning production as well as placing, are to be followed. Refer to relevant standards. Fresh concrete must be cured properly.
Recommended dosage	 For Low to Medium Workability: 1.9 - 2.4% by weight of cementitious For Flowing and Self Compacting Concrete (S.C.C): 2.0 - 3.0% by weight of cementitious
Dispensing	Sika® ViscoCrete®-5520 W is added to the gauging water or simultaneously with it poured into the concrete mixer. For optimum utilization of the high water reduction we recommended thorough mixing at minimal wet mixing of 60 seconds. Effects of overdosing and underdosing: Significant overdosage will result in increased workability and setting time of the concrete. Underdosage will result in reduced workability (more difficult placing) and shorter setting times (reduced workable lifes). However, provided the concrete is cured effectively, ultimate strength and properties will not be affected.
Compatibility	Sika® ViscoCrete®-5520 W can be combined with the following Sika Products: SikaPump® SikaFume® Intraplast® Z SikaRapid® series Sika® Aer Sika® FerroGard®-901 SikaRetarder® Pre-trials are recommended if combinations with the above products are being made. Please consult our Technical Services for other Sika Products.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY 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.



