

PRODUCT DATA SHEET

Sika® ViscoCrete®-203 SC

HWR- HIGH RANGE WATER REDUCER

DESCRIPTION

Sika® ViscoCrete®-203 SC is a third generation superplasticiser for concrete and mortar with enhanced workability retention. It meets the requirements for high range water reducing admixture (HWR) according to AS1478.1-2000.

USES

Sika® ViscoCrete®-203 SC is especially suitable for concrete mixes with extended transportation time and extended workability requirements, high water reduction and improved flow characteristics.

Sika® ViscoCrete®-203 SC is mainly used for the following applications:

- Shotcrete base mixtures (wet system)
- High performance concrete
- Concrete in hot weather and with extended transportation and workability requirements
- High durability concrete

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-203 SC is an effective, user friendly superplasticiser which acts through several different mechanisms including surface adsorption and sterical effects separating the cementitious binder particles.

The following advantageous properties are achieved:

- High water reduction, resulting in high density, high strength and reduced permeability
- Extended slump life to meet the needs of tunnelling and mining shotcrete
- Superior plasticising effect, resulting in improved flow, placing and compaction characteristics
- Reduced shrinkage during curing and reduced creep when hardened
- Sika® ViscoCrete®-203 SC does not contain chlorides or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced and pre-stressed concrete structures

PRODUCT INFORMATION

Composition	Modified polycarboxylates in water
Packaging	Bulk Deliveries 1000 litre IBC 10 litre pail
Appearance / Colour	Light brownish liquid
Shelf life	12 months from date of production if stored properly in undamaged unopened, original sealed packaging.
Storage conditions	In dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight.
Density	1.07 kg/L
Recommended dosage	Recommended dosage for concrete and shotcrete: 250 ml to 2000 ml per 100 kg of total cementitious material.

Optimum dosage should be determined by site trials.

Compatibility	Sika® ViscoCrete®-203 SC can be used in conjunction with all the concrete admixtures manufactured by Sika with the exclusion of Sikament® NN. All admixtures must be added separately. For additional information, please contact Sika technical personnel.
Dispensing	Sika® ViscoCrete®-203 SC is added to the gauging water or added with it into the concrete mixer. To take advantage of the high water reduction, a wet mixing time, which is depending on the mixing conditions and mixer performance, of at least one minute per cubic metre after the admixture addition is recommended. Sika® ViscoCrete®-203 SC shall not be added to dry cement.

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®-203 SC a suitable mix design has to be taken into account and local material sources shall be trialled.

Do not use with naphthalene based admixtures. Excessive water addition or overdosing may cause bleeding and segregation.

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

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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