BUILDING TRUST

PRODUCT DATA SHEET

Sika® ViscoCrete®-10

HWRRe High Range Water Reducer Retarder

DESCRIPTION

Sika® ViscoCrete®-10 is a third generation superplasticiser for concrete and mortar. It meets the requirements for set retarding / high range water reducing superplasticisers according to AS1478.1-2000.

USES

Sika® ViscoCrete®-10 is especially suitable for concrete mixes with extended transportation times and extended workability requirements, high water reduction and improved flow characteristics.
Sika® ViscoCrete®-10 is mainly used for the following applications:

- Concrete with ultra high water reduction (up to 30%)
- High performance concrete
- Concrete in hot weather and with extended transportation and workability requirements

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-10 is a powerful 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
- Superior plasticising effect, resulting in improved flow, placing and compaction characteristics
- Reduced shrinkage during curing and reduced creep when hardened

Sika® ViscoCrete®-10 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.

APPROVALS / STANDARDS

Sika® ViscoCrete® 10 meets and exceeds all requirements of Australian Standard 1478.1-2000 for High Range Water Reducer Retarder Admixture (HWRRe).

PRODUCT INFORMATION

Chemical Base	Modified polycarboxylate in water.
Packaging	1000 litre IBC
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 +30°C. Protect from direct sunlight and frost. It requires recirculation when held in storage for extended periods.
Appearance / Colour	Light brownish liquid

TECHNICAL INFORMATION

Concreting Guidance	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.

APPLICATION INFORMATION

Recommended Dosage	Recommended dosage for concrete: 250 ml to 2000 ml per 100 kg of total cementitious material. Optimum dosage should be determined by site trials.
Compatibility	Sika® ViscoCrete® can be used in conjunction with all the admixtures manufactured by Sika NZ Limited. All admixtures must be added separately. For additional information, please contact Sika technical personnel.

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.

LIMITATIONS

When using Sika® ViscoCrete®-10 a suitable mix design has to be taken into account and local material sources shall be trialled.
Sika® ViscoCrete®-10 shall not be added to dry cement.
Do not use with napthalene based admixtures.
Excessive water addition or overdosing may cause bleeding or segregation.
Self Compacting Concrete:
When using Sika® ViscoCrete®-10 to produce self compacting concrete, suitable mix designs have to be used.
Frost:
If frozen and/or if precipitation has occurred, Sika® ViscoCrete®-10 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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

DISPENSING

Sika® ViscoCrete®-10 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 60 seconds per cubic metre after the admixture addition is recommended.
To avoid excess water in the concrete, the final dosage must begin only after 2/3 of the wet mixing time.

LOCAL RESTRICTIONS

F e esult 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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