Construction

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, very high water reduction and excellent flow characteristics.

- Sika® ViscoCrete® 10 is mainly used for the following applications:
- Soft Concrete with very high water reduction.
- 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 mechanisms.

Through surface absorption and steric effects separating the cementitious binder particles the following properties are achieved:

- High water reduction, resulting in high density, high strength and reduced permeability.
- Excellent plasticising effect, resulting in improved flow, soft placing and compaction characteristics.
- Reduced shrinkage 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.

Storage and Shelf life

Stored at temperatures between 5°C and 35°C in unopened original containers protected from direct sunlight and frost, shelf life is at least one (1) year. Requires recirculation when held in storage for extended periods.

Instructions for Use

Dosage

Soft concrete	Dosage is 250mls to 1000mls per 100kg of total cementitious material.
SCC	Dosage is 700mls to 2000mls per 100kg of total cementitious material

Optimum dosage should be determined by site trials.

Mixing

For best results charge materials and approximately 70% of the mixing water. Mix to allow the cement to wet out sufficiently. Sika® ViscoCrete® 10 is then added together with the remaining batching water. For optimum utilisation of the high range water reduction we recommend thorough mixing at a minimum wet mixing time of 60 seconds per cubic metre after the admixture addition.

The addition of the remaining gauging water, to fine tune concrete consistency should only be started after 2/3 of the wet mixing time has elapsed and after the admixture addition, to avoid surplus water in the concrete.

Specification Type

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

Queensland Government Department of Main Roads approved.

Construction

Technical and Physical Data

Form	Aqueous solution of modified polycarboxylates
Colour	Light brown
Density (20°C)	1.06 kg/litre approx.
pH value (20°C)	4.3± 0.5
Chloride Content	No added chlorides
TEA Content	Does not contain triethanolamine
Air Entrainment	May slightly increase air content of concrete at normal dose
Packaging	20 litre pail 205 litre drum Bulk deliveries

Important Note

- Sika® ViscoCrete® 10 can be used in conjunction with the following Sika products (trials are recommended before use): SikaMix, SikaRapid, Sika Retarder, Sika FerroGard-901, Sika Control 40, Sika Plastiment, Sika Air. All admixtures must be added separately.
- Must be recirculated in bulk, or when held for extended periods in smaller containers.
- For self compacting concrete it is necessary for the concrete mixes to be designed to specifically satisfy the required flow and cohesive characteristics (contact our Sika Technical Department).
- Do not use in conjunction with naphthalene admixtures.
- As with all concretes it is essential to protect mixes containing Sika® ViscoCrete® 10 from water evaporation during the crucial early age period. We recommend the use of Antisol curing membranes for this purpose.
- For additional information, please contact your local Sika Representative.

Handling Precautions

- Avoid contact with eyes and skin.
- Wear protective gloves and eye protection during work.
- If skin contact occurs, wash skin thoroughly.
- If in eyes, hold eyes open, flood with warm water and seek medical attention immediately.
- A full Material Safety Data Sheet is available from Sika on request.

Important Notification

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Australian version of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.