

Sika ViscoCrete[®] 20 HE

High Early Strength Superplasticiser

Construction

Description	Sika ViscoCrete [®] 20 HE is a third generation superplasticiser specifically designed for the production of soft plastic concrete with very high early strength characteristics. The special formulation of Sika ViscoCrete [®] 20 HE optimises the dispersion of the binder and at the same time improves the concrete consistency and cohesion.
Uses	Sika ViscoCrete [®] 20 HE is suitable for the production of concrete mixes which require high early strength development, powerful water reduction and excellent flowability. <ul style="list-style-type: none"> • Precast concrete • Concrete with high water reduction • High strength concrete • In situ concrete requiring fast stripping time • Self compacting concrete (S.C.C)
Advantages	Sika ViscoCrete [®] 20 HE is an effective superplasticiser, which through surface absorption and sterical effects, the following properties can be achieved: <ul style="list-style-type: none"> • Promote high density and impermeable concrete through extreme high water reduction. • Improves workability and finishability. • Improves shrinkage and creep behaviour. • Pronounced increase in the early strength development and set times. • Higher ultimate strengths. • Suitable for the production of self compacting concrete. • Increases the durability of the concrete • Optimises cement utilisation <p>Sika ViscoCrete[®] 20 HE does not contain chlorides or other ingredients promoting corrosion of steel reinforcement. It is therefore suitable for reinforced and prestressed steel.</p>
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.
Instructions for Use	
Dosage	Dosage is 200mls to 1000mls per 100kg of total cementitious material. Optimum dosage should be determined by site trials.
Mixing	Sika ViscoCrete [®] 20 HE is added to the initial batching water. For optimum utilisation of the high water reduction we recommend thorough mixing at a minimal wet mixing time of 60 seconds per cubic meter. The addition of the remaining gauging water, to fine tune concrete consistency, should only be started after 2/3 of the wet mixing time, to avoid surplus water in the concrete.
Application Method	Concrete should be placed according to good concrete practices and proper curing procedures should take place.
Specification Type	Sika ViscoCrete [®] 20 HE meets and exceeds all requirements of Australian Standard 1478.1-2000 for High Range Water Reducer Type (HWR).

Technical and Physical Data

Form	Aqueous solution of modified polycarboxylates
Colour	Light brown
Density (20°C)	1.08 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
Packaging	20 litre pail 205 litre drum Bulk deliveries

Important Note

- Due to Sika ViscoCrete® 20 HE high early characteristics, slump life is limited and proper care and timing during placement should be taken.
- Sika ViscoCrete® 20 HE can be used in conjunction with the following Sika products (trials are recommended before use): SikaMix, SikaRapid, Sika FerroGard-901, Sika Control 40. All admixtures must be added separately.
- 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).
- As with all concretes it is essential to protect mixes containing Sika ViscoCrete® 20 HE from water evaporation during the crucial early age period. We recommend the use of Sika Film or Antisol curing membranes for this purpose.
- Do not use with naphthalene based admixtures.
- 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 Technical Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.

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