PRODUCT DATA SHEET

Sika® ViscoCrete® SKY 8588

(formerly MasterGlenium® SKY 8588)

New generation superplasticising admixture

DESCRIPTION

Sika® ViscoCrete® SKY 8588 contains polycarboxylate ether polymers and is specially formulated to give exceptionally high water reduction and significantly reduced slump loss. Sika® ViscoCrete® SKY 8588 is free of chloride. It is compatible with all cements meeting recognised international standards.

Chemistry and Mechanism of action

Conventional superplasticisers, such as those based on sulphonated melamine and napthalene formaldehyde condensates, at the time of mixing, become absorbed onto the surface of the cement particles. This absorption takes place at a very early stage in the hydration process. The sulphonic groups of the polymer chains increase the negative charge on the surface of the cement particle and dispersion of the cement occurs by electrostatic repulsion. Sika® ViscoCrete® SKY 8588 is differentiated from conventional superplasticisers in that it is based on a unique polycarboxylate ether polymer with long lateral chains. This greatly improves cement dispersion. At the start of the mixing process the same electrostatic dispersion occurs as described previously but the presence of the lateral chains, linked to the polymer backbone, generate a steric hindrance that stabilises the cement particles capacity to separate and disperse. This mechanism provides flowable concrete with greatly reduced water demand.

USES

- Concrete with less water content than with conventional admixtures
- Faster mixing logistics during large jobs
- High flowability concrete
- Highly durable concrete
- High strength concrete
- Ready-mixed concrete
- Self compacting concrete
- Mass concrete
- Long distance transportation
- Pumped concrete

FEATURES

- High water reduction, high early and ultimate strenghts.
- High flowability, ease of placing and compaction. No segreation or bleeding.
- Reduce slump loss, no retempering. Ease of delivery to point of placement.
- Low shrinkage and creep, improve dimensional stability and reduce risk of cracks.
- Good cohesion, ease of pumping, no bleeding.
- Good workability, excellent surface appearance. Self compacting concrete.
- Minimal bleed water, excellent concrete quality, significantly less bleeding than traditional Superplasticiser.
- High elastic modulus, superior load bearing capacity.

CERTIFICATES AND TEST REPORTS

Comply with BS EN 934

PRODUCT INFORMATION

Packaging	205 litre drum or bulk delivery
Shelf life	12 months from date of production

Storage conditions	Store properly in undamaged and unopened original sealed packaging in cool and dry conditions. Protect from direct sunlight and frost.
Appearance and colour	Yellow Liquid
Specific gravity	1.060 ± 0.02 kg/litre

APPLICATION INFORMATION

Recommended dosage	Dosage of Sika® ViscoCrete® SKY 8588 depends on the mix design, ambient conditions and degree of water reduction and workability required. Typical dosage is 1000 ml/100kg of cementitious material. Other dosages with a range of 500 to 3000ml/100kg of cementitious material may be recommended in special cases according to specific job site conditions. Trial concrete mixes must be carried out to determine the appropriate dosage.
Dispensing	Sika® ViscoCrete® SKY 8588 can be added into the mixing water, or can be added to the wet concrete after the mixing water has been added. The addition of Sika® ViscoCrete® SKY 8588 to a dry concrete mix is not recommended. A separate dispenser and feed line must be used.

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.

LIMITATIONS OF USE

Do not use Sika® ViscoCrete® SKY 8588 admixture with naphthalene-based high-range water-reducing admixtures. Erratic behaviours in slump and pumpability may be experienced. Sika® ViscoCrete® SKY 8588 is compatible with selected Sika air-entraining agents. Consult your local Sika representatives for advice.

ECOLOGY, HEALTH AND SAFETY

Sika® ViscoCrete® SKY 8588 does not contain any hazardous substances requiring labelling.
It is safe for use with standard precautions followed in the construction industry, such as use of hand gloves, safety goggles, etc.
For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions in the product Material Safety Data Sheet.

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.

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