

PRODUCT DATA SHEET

Sika® ViscoCrete® SKY 8788

(formerly MasterGlenium® SKY 8788)

New generation superplasticizing admixture with superior slump retention properties

DESCRIPTION

Sika® ViscoCrete® SKY 8788 is a new generation superplasticizer with super retention technology. It contains polycarboxylate ether polymers and is specially formulated for ready-mix concrete where slump retention, high strength and durability are required in hot climates. The excellent dispersion effect makes Sika® ViscoCrete® SKY 8788 the ideal admixture for the ready-mix concrete industry. The ability to work at different water cement ratio and still obtain good slump retention allows for the manufacture of high quality concrete. Sika® ViscoCrete® SKY 8788 is free of chloride and also compatible with all cements meeting recognized international standards.

Chemistry and Mechanism of Action

Conventional superplasticisers, such as those based on sulphonated melamine and naphthalene 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 8788 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, generates a steric hindrance which stabilizes the cement particles capacity to separate and disperse.

This mechanism provides flowable concrete with

greatly reduced water demand.

Sika® ViscoCrete® SKY 8788 is not compatible with the Sikament series superplasticizers.

Sika® ViscoCrete® SKY 8788 has been formulated to meet the requirements of ASTM C494 for Type F.

USES

- Concrete with less water content than with conventional admixtures
- High flowability concrete with improved rheological properties
- Highly durable concrete
- Ready-mixed concrete
- Mass concrete
- Long distance transport
- Pumped concrete
- Hot weather concreting

FEATURES

Sika® ViscoCrete® SKY 8788 offers the following benefits for the concrete industry:

- High water reduction – High early and ultimate strength. Low permeability, high durability concrete.
- Better rheology – Ease of mixing, placing, compaction and finishing. High flowability.
- Superior slump retention – No retempering. Ease of delivery to point of placement.
- Low shrinkage and creep – Improve dimensional stability. Reduced risk of cracks.
- Good cohesion – Ease of pumping. No bleeding.
- Good workability – Excellent surface appearance. Self-compacting concrete.
- Minimal bleed water – Excellent concrete quality.
- High elastic modulus – Superior load bearing capacity.

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PRODUCT INFORMATION

Packaging	200 L / Drum and 1000L / Drum
Shelf life	12 months from the date of production If stored properly in undamaged, original, sealed packaging
Storage conditions	Store in dry conditions, protected from direct sunlight at temperature between 5°C and 40°C
Appearance and colour	Dark Brown
Density	1.075~1.095 kg/L @ 25°C
pH-Value	5.0 - 8.0

APPLICATION INFORMATION

Recommended dosage	Dosage of Sika® Viscocrete® SKY 8788 depends on the mix design, ambient conditions and degree of water reduction and workability required. Sika® Viscocrete® SKY 8788 is dispensed at a rate of 400ml to 800ml per 100kg of cementitious material. Other dosages may also be used depending on the specific working conditions. Sika® Viscocrete® SKY 8788. Trial mixes should be made with job materials to determine the optimum dosage required for a specific job requirement.
Dispensing	Sika® Viscocrete® SKY 8788 is a ready-to-use admixture to be added to the concrete mix as a separate component. Optimal mixing water reduction is obtained if Sika® Viscocrete® SKY 8788 is dispensed into the concrete mix right after the addition of the first 50 – 70% of the mixing water. Avoid adding the admixture to the dry aggregates. 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.

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 Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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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