

PRODUCT DATA SHEET

Sika® ViscoCrete® ACE 8423

(formerly MasterGlenium® ACE 8423)

High early strength, high range water reducing/superplasticising, admixture for precast concrete

DESCRIPTION

Sika® ViscoCrete® ACE 8423 is an admixture of a new generation based on second-generation polycarboxylic ether polymer with high early strength gains. Sika® ViscoCrete® ACE 8423 is free of chloride & low alkali. It is compatible with all types of cements.

USES

Sika® ViscoCrete® ACE 8423 is suitable for making precast concrete elements at all workability's including Rheoplastic or Super workable concrete having fluid consistence, no segregation, a low water binder ratio and, consequently high early and long term strengths

Sika® ViscoCrete® ACE 8423 may be used in combination with Sika Stabilizer for producing Rheodynamic concrete, capable of self-compaction, even in the presence of dense reinforcement without the aid of vibration, for making precast elements.
Concreting in cold weather

CHARACTERISTICS / ADVANTAGES

- Achieve high early strengths
- Produces Rheoplastic and Rheodynamic concretes having a low water cement ratio
- Optimise curing cycles by reducing curing time or curing temperatures
- Eliminate/minimize heat curing
- Increase productivity/ reduction in cycle time
- Improve surface appearance
- Produce durable precast concrete elements
- Improved engineering properties, compared to traditional superplasticiser such as early and ultimate compressive and flexural strengths, reduced shrinkage and low permeability.

APPROVALS / STANDARDS

IS 9103, ASTM C494 Types F & G

PRODUCT INFORMATION

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| Packaging | 245kg drum |
| Appearance / Colour | Light to dark reddish brown liquid |
| Shelf life | 12 months from date of production if stored properly in undamaged unopened, original sealed packaging. |
| Storage conditions | Sika® ViscoCrete® ACE 8423 must be stored where temperatures do not drop below +5°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Sika representative. |

Density 1.12 ± 0.02 at 25°C

pH-value ≥ 6

APPLICATION INFORMATION

Recommended Dosage

Optimum dosage of Sika® ViscoCrete® ACE 8423 should be determined in trial mixes. As a guide, a dosage range of 300 ml to 1800ml per 100kg of cementitious material is normally recommended. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required. In such cases, contact your local Sika representative.

Effects of over dosage

A severe over-dosage of Sika® ViscoCrete® ACE 8423 can result in the following:

- Air entrainment
- Bleed/segregation of mix
- Increased plastic shrinkage

A slight overdosing may not adversely affect the ultimate strength of the concrete and can achieve higher strengths than normal concrete, provided it is properly compacted and cured. Due allowance should be made for the effect of fluid concrete pressure on form work, and stripping times should be monitored.

In the event of over dosage consult your local Sika representative immediately.

Compatibility

Sika® ViscoCrete® ACE 8423 is compatible with most of the Sika products. Use Sika Stabilizer as viscosity modifying agent in self compacting concrete. It must not be used in conjunction with any other admixture unless prior approval is received from Sika Technical Services Department.

Dispensing

Sika® ViscoCrete® ACE 8423 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of Sika® ViscoCrete® ACE 8423 to dry aggregate or cement is not recommended. Thorough mixing is essential and a minimum mixing cycle, after the addition of the Sika® ViscoCrete® ACE 8423, of 60 seconds for forced action mixers is recommended.

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.

FURTHER DOCUMENTS

CORROSIVITY – NON CORROSIVE

Sika® ViscoCrete® ACE 8423 admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or concrete placed on galvanized steel floor and roof systems. Neither calcium chloride nor any calcium chloride-based ingredients are used in the manufacture of Sika® ViscoCrete® ACE 8423 admixture. In all concrete application, Sika® ViscoCrete® ACE 8423 admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

WORKABILITY

Sika® ViscoCrete® ACE 8423 ensures that rheoplastic concrete remains workable for a long time. Workabil-

ity loss is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability. It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

To achieve longer workability period please use Sika Plastiment as retarder. It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

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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Product Data Sheet

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