

PRODUCT DATA SHEET

Sika® ViscoCrete® GL 51

(formerly MasterGlenium® 51)

High Range Water Reducing Admixture For Concrete

DESCRIPTION

Sika® ViscoCrete® GL 51 is a polycarboxylic ether based, high range water reducing new second generation super plasticizer concrete admixture developed for readymix concrete and precast industry that needs high early and final strengths and durability.

USES

- In the production of self consolidating and self compacting concrete.
- In the production of Rheodynamic concrete that can easily set to densely reinforced concrete elements.
- In the production of 18-24 hours and 28 days high strength concrete.
- In the production of precast and prefabricated concrete.
- In the production of readymix concrete.

FEATURES

- Improves concrete's early and final compressive and flexural strengths, adherence to steel, and impermeability compared to traditional super plasticizers
- Improves concrete's mechanic properties like carbonation, resistance to chlorine ion attack, resistance to aggressive chemicals, shrinkage, and creeping.
- Enables the production of low water/cement ratio, low segregation and leaching risk Rheoplastic concrete.
- Enables production of high early strength concrete even in low temperatures.
- Minimizes stripping time.
- Improves wear resistance of concrete by reducing segregation and bleeding.
- Reduces application periods of resin based pavement systems on new concrete with its low water/cement ratio, high early strength and bleeding reduction properties.
- Increases Freezing-Thawing resistance of concrete.
- Reduces curing time and curing temperature in the production of precast elements.
- Can be used with all cement types. Shows less sensitivity to material differentiation.
- Does not contain chlorine.

CERTIFICATES AND TEST REPORTS

EN 934-2 : T3.1 & T3.2 & T7

PRODUCT INFORMATION

Composition	Modified Polycarboxylic Ether Based
Packaging	Bulk, 1000-kg IBC's and 220-kg barrels and 30-kg cans.
Shelf life	12 months if stored according to manufacturer's instructions in unopened container.
Storage conditions	Store in original sealed containers and at temperatures between 5°C and 35°C. 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.
Appearance and colour	Brown , liquid
Density	1,082 – 1,142 kg/lit at 20°C
pH-Value	6,00 - 7,00
Total chloride ion content	≤ 0.10 (by mass)

TECHNICAL INFORMATION

Concreting guidance	Sika® ViscoCrete® GL 51 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® GL 51 is dispensed into the concrete mix right after the addition of the first 50 - 70% of the mixing water, i.e. when all the solids are wetted out. Avoid adding the admixture to the dry aggregates.
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SYSTEM INFORMATION

Compatibility	<p>Sika® ViscoCrete® GL 51 can be used with all types of EN 197 Cements. For use with other special cements, contact our Sika Yapı Kimyasalları A.Ş. Technical Services Department. Sika® ViscoCrete® GL 51 should not be premixed with other admixtures. If other admixtures are to be used in concrete containing Sika® ViscoCrete® GL 51 they must be dispensed separately. Sika® ViscoCrete® GL 51 is not compatible with all admixtures of the Sikament® series.</p> <p>In order to optimize special requirements the use of the following complementary additives is suggested:</p> <ul style="list-style-type: none">▪ Air entraining agents SikaControl® AER series to improve frost/thaw resistance▪ Silica fume for high performance concrete (HPC) and improving durability in chemical aggressive environments <p>When such complimentary admixtures are required it is important that laboratory trials are performed, prior to any supply, to determine the respective dosages of any complimentary admixture, and the suitability, in the fresh and hardened state, of the resultant concrete. In these circumstances we recommend that you consult our Sika Yapı Kimyasalları A.Ş. Technical Services Department for further advice.</p>
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APPLICATION INFORMATION

Recommended dosage

The normally recommended dosage rate of Sika® ViscoCrete® GL 51 is approximately;

- By Weight – 0.7 to 0.9 kg per 100 kg of cement (binder)

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Sika Yapı Kimyasalları A.Ş. Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Sika Yapı Kimyasalları A.Ş. Technical Services Department for dosage rate guidance.

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.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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Product Data Sheet

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