

PRODUCT DATA SHEET

Sika® ViscoCrete® SKY 617

(formerly MasterGlenium® SKY 617)

Polycarboxylic ether-based superplasticizer for the production of high-quality ready-mix concrete with extended workability retention

DESCRIPTION

Sika® ViscoCrete® SKY 617 is a new generation superplasticizer based on a chain modified polycarboxylate ether, suitable for the concrete industry, with high retention of workability and durability.

Sika® ViscoCrete® SKY 617 is a superplasticizer with high maintenance workability with a multi-action polymeric effect, wherein the cement grains are dispersed by both the electrostatic effect as well as steric of hydrophilic present side chains on the basis of polymer chain. Thus, one obtains a separation capacity and higher dispersion, in comparison with other superplasticizers, and also an ability to reduce the apparent water content.

The presence of these additional polymer chains in **Sika® ViscoCrete® SKY 617** allows for the product to:

- Keep a longer workability retention.
- Secure increased mechanical strength at early ages for superplasticizers.
- Reduce the water content compared to traditional superplasticizers.

USES

The main application of Sika® ViscoCrete® SKY 617 is for use in Ready-mix Concrete. The consistency of the dispersing action of Sika® ViscoCrete® SKY 617 also allows for self-compacting concrete, post-stressed concrete, or even prefabricated concrete (in which the maintaining of the workability for longer requirement)

CHARACTERISTICS / ADVANTAGES

- Allows for the production of concrete of high workability class (without segregation).
- Improves surface finish.
- The high compact ability achieved in the produced concrete, allows to achieve a high density, low-permeability concrete which may offer improved resistance to ingress of deleterious substances.
- Compared to a traditional, older generation superplasticizers Sika® ViscoCrete® SKY 617 offers improved durability and strength development.
- The multi-action mechanism from additional polymeric side chains allows for increased water reduction, compared to conventional old generation superplasticizers.

APPROVALS / STANDARDS

ASTM C-494 Type F&G
BS EN 934-2

PRODUCT INFORMATION

Packaging

Sika® ViscoCrete® SKY 617 is available in 1000 litre IBCs.

Shelf Life

The shelf life is 12 months, from date of manufacture when stored correctly.

Storage Conditions

Sika® ViscoCrete® SKY 617 should be stored out of direct sunlight and protected from extremes of temperatures. Store in a sheltered place with temperatures no lower than 5 ° C, In the case of freezing, heat the product at 30 °C and stir to reconstitute.

The occurrence of a surface layer with Sika® ViscoCrete® SKY 617 is normal and will have no effect on the performance of the product.

Appearance / Colour

Brownish liquid

Density

1.035 – 1.055

pH-Value

5.0 – 7.0

Total Chloride Ion Content

“Chloride-free” to EN 934-2

SYSTEM INFORMATION

Compatibility

In order to optimize specific conditions, it is recommended to use additional admixtures such as **SikaControl AER** to improve the resistance to freeze / thaw cycles and Micro sil-ica, **SikaFume MS 610**, for concrete high-performance and improved durability in harsh environments.

Sika® ViscoCrete® SKY 617 is suitable for mixes containing:

- Microsilica (Silica Fume)
 - Fly Ash (PFA)
 - GGBS (ground granulated blast furnace slag)
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APPLICATION INFORMATION

Recommended Dosage

The usual recommended dosage is approximately **0.5 to 1.5L per 100 kg** of cementitious binder content.

Other dosages may be recommended in special cases according to specific site conditions. In this case, please consult our Technical Services Department for advice.

Dispensing

Best practice is to mix with cement, other binders, sand, aggregate and water mixture to obtain a homogeneous mixture and to ensure a maximum plasticizing effect Sika® ViscoCrete® SKY 617 should be added to the concrete with after approximately 80% of mixing water have been introduced. Important: The superplasticizer should be added to dry materials.

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

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.

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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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