

PRODUCT DATA SHEET

Sika® ViscoCrete® RM-600

HIGH RANGE SUPER-PLASTICIZER WITH EXCELLENT SLUMP KEEPING PROPERTIES

DESCRIPTION

Sika® ViscoCrete® RM-600 is a third generation polycarboxylate based superplasticizer for concrete. It has been particularly developed for use in ready mixed concrete to give extended slump retention and high strength development of normal grade concrete mixes.

Sika® ViscoCrete® RM-600 is suitable for use in concrete mixes containing microsilica and other pozzolanic materials such as GGBS and fly ash. Suitable for use in hot and tropical climatic conditions.

USES

Sika® ViscoCrete® RM-600 is especially suitable for producing the following types of concrete:

- High performance / high strength concrete
- Concrete with extremely high water-reducing capacity
- Extremely flowable concrete whilst retaining optimal cohesion and self-compacting concrete
- Production of site / ready mixed concrete in summer or hot weather
- Extended transportation or placing that requires retained workability for extended periods
- Textured surface finishes and slim elements that require high standard surface finish
- Self-compacting concrete especially where highly congested reinforcing steel is encountered
- High water reduction and excellent flowability have a positive influence on the above mentioned uses

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete® RM-600 acts by surface absorption on the cement particles producing steric hindrance as well as electrostatic repulsion between cement particles which results in higher dispersion, flow and retention.

Sika® ViscoCrete® RM-600 provides the following beneficial properties:

- Self-compacting concrete (S.C.C.)
- High impermeability and strengths due to extremely high water reduction
- Improved shrinkage and creep characteristics
- Excellent flow ability resulting in minimal placing and compacting efforts
- Slower rate of carbonation ingress in hardened concrete
- Cost effective, structurally economic
- Higher ultimate strengths allows greater flexibility for engineers to design
- Highly effective plasticizer reduces surface defects in concrete elements and improves aesthetic appearance
- Durable concrete
- Does not contain chlorides or other steel corrosion promoting ingredients therefore may be used for reinforced and pre-stressed concrete construction

APPROVALS / CERTIFICATES

Sika® ViscoCrete® RM-600 follows the requirements of ASTM C494; Type G and EN 934-2

PRODUCT INFORMATION

Composition	Aqueous solution of modified polycarboxylates, co-polymers
Packaging	1000 L flow bins
Appearance / Colour	Yellowish to amber coloured liquid
Shelf life	12 months from date of production if stored properly
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +45 °C. Protect from direct sunlight and frost
Density	~1.13 kg/l (+25 °C)
Total Chloride Ion Content	Nil (EN 934-2)

TECHNICAL INFORMATION

Concreting Guidance	<p>The standard rules of good concreting practice for production and placing must be observed when using Sika® ViscoCrete® RM-600 in concrete. Refer to relevant standards.</p> <p>Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage. Use Sika® Antisol® products as a curing agent or apply wet hessian.</p>
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APPLICATION INFORMATION

Recommended Dosage	<p>For medium workability concrete: 0.4 - 0.7 % by weight of binder For self compacting concrete: 0.8 - 1.8 % by weight of binder Higher dosages by weight of binder can be used depending on the mix design, raw materials, climatic conditions and concrete requirements. Trial mixes must be performed to establish the exact dosage rate required.</p>
Compatibility	<p>Sika® ViscoCrete® RM-600 may be combined with all types of Portland cement and the following Sika products:</p> <ul style="list-style-type: none">▪ SikaPump®▪ Sika® FerroGard®-901▪ SikaFume®▪ SikaFiber®▪ Sika Aer®▪ Sika® Stabilizer▪ Sika®-1 WT <p>We recommend to perform trial mixes to establish the required performance when combined with the above products. Please consult our Sika Technical Department.</p>
Dispensing	<p>Sika® ViscoCrete® RM-600 is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant. Do not add Sika® ViscoCrete® RM-600 directly to the dry mix. For optimum utilization of its high water reduction property we recommend thorough mixing at a minimal wet mixing time of 60 seconds. The addition of the remaining gauging water (to fine tune concrete consistency) may only be started after two-thirds of the wet mixing time to avoid surplus water in the concrete.</p>

IMPORTANT CONSIDERATIONS

When using Sika® ViscoCrete® RM-600 a mix design must be selected for the local material sources used and trial mixes performed to verify suitability.

If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing.

Sika® ViscoCrete® RM-600 should not be added to dry cement.

Before pouring, suitability tests on the fresh concrete must be carried out. Due to the extended workability take special care that formwork is properly installed and secured. In case the setting time of concrete is extended, if cured properly, other properties may not be affected and higher ultimate strength is visualized.

Sika® ViscoCrete® products are not compatible with admixtures based on sulfonated naphthalene or melamine.

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.

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 the exact product data and uses.

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

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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ISO 9001: Sika UAE LLC,
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Sika Saudi Arabia Co. Ltd,
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ISO 14001: Sika UAE LLC,
Sika Gulf B.S.C. (c),
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OHSAS: Sika UAE LLC,
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All products are supplied
under a management
system certified to conform
to the requirements of the
quality, environmental and
occupational health &
safety standards ISO 9001,
ISO 14001 and OHSAS
18001.

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