

## PRODUCT DATA SHEET

# Sika<sup>®</sup> ViscoCrete<sup>®</sup> RM-800

HIGH RANGE SUPERPLASTICIZER WITH EXCELLENT SLUMP KEEPING PROPERTIES FOR SELF COMPACTING CONCRETE

### DESCRIPTION

Sika<sup>®</sup> ViscoCrete<sup>®</sup> RM-800 is a third generation, high performance, dual action superplasticizer, based on Sika's own ViscoCrete<sup>®</sup> technology, for the production of self-compacting concrete. Suitable for use in hot and tropical climatic conditions.

### USES

- Site mixed and ready-mix concrete
- During hot weather for the production of concrete with extended transportation or placing times
- Concrete requiring retained workability for an extended period
- Textured surface finish
- Concrete with extremely high water reduction
- Self compacting concrete especially where congested steel reinforcement is encountered or for slim elements requiring a high standard of surface finish.
- High performance / high strength concrete

High water reduction and excellent flowability have a positive influence on the above mentioned applications.

### CHARACTERISTICS / ADVANTAGES

Sika<sup>®</sup> ViscoCrete<sup>®</sup> RM-800 acts by surface adsorption on cement particles producing sterical hindrance as well as electrostatic repulsion resulting in higher dispersion, flow and retention providing the following beneficial properties:

- Self-compacting concrete (S.C.C.)
- High impermeability and strength due to extremely high water reduction
- Improved shrinkage and creep characteristics
- Excellent flowability resulting in minimal placing and compacting efforts
- Slower rate of carbonation and chloride ingress specially
- when silicafume or pozzolanic products are used
- Very good cost / performance ratio
- Does not contain chlorides or other steel corrosion promoting ingredients therefore may be used for reinforced and pre-stressed concrete construction

### APPROVALS / CERTIFICATES

Sika<sup>®</sup> ViscoCrete<sup>®</sup> RM-800 follows the requirements of ASTM C494; Type G and EN 934-2

### PRODUCT INFORMATION

<b>Composition</b>	Aqueous solution of modified polycarboxylates
<b>Packaging</b>	1000 L flowbin
<b>Appearance / Colour</b>	Yellowish brown liquid
<b>Shelf life</b>	12 months from date of production if stored properly
<b>Storage conditions</b>	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +45 °C. Protect from direct sunlight and frost
<b>Density</b>	~1.13 kg/l at 25 °C

## TECHNICAL INFORMATION

### Concreting Guidance

The standard rules of good concreting practice for production and placing must be observed when using Sika® ViscoCrete® RM-800 in concrete. Refer to relevant standards. 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.

## APPLICATION INFORMATION

### Recommended Dosage

0.8 - 1.5 % 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.

### Compatibility

Sika® ViscoCrete® RM-800 may be combined with all types of Portland cement, microsilica, GGBS, fly ash and the following Sika products:

- SikaFume®
- SikaPump®
- Sika® FerroGard®-901
- Sika-Aer®
- Sika® Stabilizer
- Sigunit® range

We recommend to perform trial mixes to establish the required performance when combined with the above products. Please consult our Sika Technical Department.

### Dispensing

Sika® ViscoCrete® RM-800 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-800 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.

## IMPORTANT CONSIDERATIONS

When using Sika® ViscoCrete® RM-800 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-800 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.

When accidental overdosage occurs bleeding and segregation of the concrete and retardation of initial set will be observed.

## 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.

### SIKA NORTHERN GULF

Bahrain / Qatar / Kuwait  
Tel: +973 177 38188  
sika.gulf@bh.sika.com  
gcc.sika.com

### SIKA SOUTHERN GULF

UAE / Oman / SIC  
Tel: +971 4 439 8200  
info@ae.sika.com  
gcc.sika.com

### SIKA SAUDI ARABIA

Riyadh / Jeddah / Damman  
Tel: +966 11 217 6532  
info@sa.sika.com  
gcc.sika.com



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Sika Qatar LLC  
ISO 14001: 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.

### Product Data Sheet

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