

**BUILDING TRUST** 

## PRODUCT DATA SHEET

# Sika® ViscoCrete® RMC GL 315

(formerly MasterGlenium® RMC 315)

A UNIQUE THIRD GENERATION SUPERPLASTICISER, DEVELOPED ESPECIALLY FOR THE READY MIX OR PRE-CAST MARKET WHERE HIGH EARLY STRENGTH, HIGHEST CONCRETE QUALITY AND AESTHETICALLY SUPERB SURFACES ARE OF IMPORTANCE

#### **DESCRIPTION**

Sika® ViscoCrete® RMC GL 315 is a unique third generation superplasticiser based on modified polycarboxylic ether. The product has been primarily developed for the use in the concrete industry where the highest durability and performance are required. Sika® ViscoCrete® RMC GL 315 is free of chloride and low alkali. It complies with BS 5075 Part 3 and EN934-2. Sika® ViscoCrete® RMC GL 315 is compatible with all types of cement.

#### **USES**

- The excellent dispersion effect makes Sika® ViscoCrete® RMC GL 315 the ideal admixture for high quality concrete industry.
- The ability to work with an extremely low w/c ratio allows for the manufacture performance concrete early (18-24 hours) and final strengths. Concrete of high density, low permeability is also produced.

#### **FEATURES**

- Flowable concrete with the lowest w/c ratio without segregation or blending
- Allows reduction of curing cycles i.e. time or temperature
- Possibility of the elimination of steam curing
- Allows concrete production at low temperature
- Less vibration required, even in case of congested steel reinforcement
- Less workmanship required
- Improves concrete surface finish and texture
- Compared to traditional superplasticisers, the addition of MasterGlenium RMC 315 will improve the
- physical properties and thus the durability of concrete

#### Sika® ViscoCrete® RMC GL 315 INCREASES

- Initial and final compressive strength
- Initial and final flexural and tensile strength
- E-modulus
- Adhesion to reinforcement and pre-stressed steel
- Resistance to carbonation and chloride ion attack of concrete
- Resistance to aggressive atmospheric conditions

#### Sika® ViscoCrete® RMC GL 315 DECREASES

- Risk of shrinkage
- Creep

#### PRODUCT INFORMATION

Packaging	Sika® ViscoCrete® RMC GL 315 is available in 210ltr drums, 1000ltr container or in bulk.
Shelf life	Up to 12 months if stored according to manufacturer's instructions in unopened container
Storage conditions	It is recommended to store Sika® ViscoCrete® RMC GL 315 in tightly closed packaging, at moderate temperatures not below +5ºC. If frozen, thaw at approximately +20°C until completely reconstituted.

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Appearance and colour	Viscous brown liquid
Density	(1.075 - 1.085) at 25° C
pH-Value	5-8
Total chloride ion content	Less than 0.1 % w/v (nil)

#### APPLICATION INFORMATION

Recommended dosage	The normally recommended dosage rate is between 0.2-3%of cement weight (binder), depending on specific mix design and requirements.
Compatibility	Where ambient temperatures of below 12®C are encountered and high early strength is required, to enable early demoulding within 24 hours, and then it may be necessary to add MasterGlenium ACTIVATOR with Sika® ViscoCrete® RMC GL 315. The recommended dosage of a MasterGlenium ACTIVATOR is 1ltr/100kg of cement (binder).  This combination guarantees a uniform and fast development of initial and final strength.  At temperatures above 12°C, the addition of MasterGlenium ACTIVATOR is not required.  Like Sika® ViscoCrete® RMC GL 315, GLENIUM ACTIVATOR is free of chloride and is a low alkali; it is compatible with all types of cements.  Other combinations that are recommended:  Air-entraining agents (such as MasterAir range) to optimise frost/thaw resistance  Silica fume for higher density  Expanding agents (such as for controlled shrinkage)  Synthetic and steel fibres  Curing agents against evaporation of mixing water

#### **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 shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

#### APPLICATION INSTRUCTIONS

Sika® ViscoCrete® RMC GL 315 is a ready-to-use admixture to be added to the concrete mix as a separate component.

Optimal concrete plasticising effect (and thus maximum mixing water reduction) is obtained if

Sika® ViscoCrete® RMC GL 315 is added into the concrete after the first 50-70% of the water has been mixed. Avoid adding the admixture to dry aggregate or sand. In all cases, it is important to add Sika® ViscoCrete® RMC GL 315 first and the other admixtures subsequently.

#### **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 ad-

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