

Sika® VMA

Viscosity Modifying Admixture

Construction

Product Description

Sika® VMA is a ready to use liquid based viscosity modifying admixture. Sika® VMA improves stability and segregation resistance of concrete mixes resulting in improved surface quality and aesthetics. Sika® VMA is suitable for various types of concrete. Sika® VMA has been found to improve plastic properties of Self Compacting Concrete (SCC) as well as high slump conventional concrete mixes and mixes containing manufactured sand and/or poorly graded aggregates.

Sika® VMA helps stabilise the air void system in freshly mixed and placed concrete and increases the overall concrete stability. Sika® VMA is compatible with Sika ViscoCrete® high range water reducing admixtures and is recommended for precast and ready mix concrete applications.

Uses

Sika® VMA has been specially developed for Self Compacting Concrete (SCC) and can also be used for other concretes, where improved stability during transportation and placing is required. Sika® VMA improves the fresh concrete properties of mixes with varying fines content, low cement content or concrete mixes with unfavourable grading curves.

Sika® VMA is used for:

- Self Compacting Concrete (SCC)
- Shotcrete applications
- Pumped concrete
- Low fines content concrete

Characteristics / Advantages

Sika® VMA provides the following characteristics and advantages in the fresh concrete properties:

- Strongly increased internal cohesion of the mix
- Lower sensitivity against variations in the constituent materials and gap graded aggregates
- Homogeneous mix
- Less bleeding
- Improves stability during transportation
- Faster concrete consolidation
- Reduced tendency to segregation

Sika® VMA assists the concrete placing in the following ways:

- Reduction of compaction defects
- Smoother concrete surfaces
- Improved pumpability
- Equipment is preserved and its service life is prolonged

Sika® VMA does not contain chlorides or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced and prestressed concrete structures.

Product Data

Form

Appearance / Colours Brown liquid

Packaging 200 kg drums (non returnable).
1000 litre IBC's or tanker delivery on request.



Storage	
Storage Conditions / Shelf Life	12 months from date of production if stored properly in undamaged containers, in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight and frost. Stir thoroughly before use.
System Information	
Application Details	
Consumption / Dosage	Recommended dosage: 0.1 - 1.0% by weight of cement
Specification Type	Queensland Government Department of Main Road approved
Application Conditions / Limitations	
Compatibility	Sika® VMA may be combined with many other Sika products. Important: Always conduct trials before combining products in specific mixes and contact our Technical Service for information and advice about any specific combinations.
Application Instructions	
Dispensing	Sika® VMA is added to the gauging water at the plant or added on-site into the concrete mixer. When added on site the truck mixer shall rotate its drums at maximum revolutions for at least 1 minute per m ³ concrete and a minimum of 5 minutes to achieve a uniform mix.
Application Method / Tools	The standard rules of good concreting practice, concerning production as well as placing, are to be followed. Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components. Fresh concrete must be cured properly and curing applied as early as possible.
Notes on Application / Limitations	When using Sika® VMA a suitable mix design has to be produced and the local material sources shall always be trialled. Overdosing may result in retardation. For optimum dosage trials are recommended. Sika® VMA shall not be added to dry cement.
Value Base	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.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet 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's 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 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 proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Australian version of the Technical Data Sheet for the product concerned, copies of which will be supplied on request. PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION

