

## PRODUCT DATA SHEET

# Sika® Stabilizer-110 AE

(formerly MMatrix 110AE)

High-performance viscosity modifying agent (VMA)

### DESCRIPTION

Sika® Stabilizer-110 AE is a ready to use liquid based viscosity modifying admixture. Sika® Stabilizer-110 AE improves stability and segregation resistance of concrete mixes resulting in improved surface quality and aesthetics. Sika® Stabilizer-110 AE is suitable for various types of concrete. Sika® Stabilizer-110 AE 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® Stabilizer-110 AE helps stabilise the air void system in freshly mixed and placed concrete and increases the overall concrete stability and passing ability.

Suitable for use in hot and tropical climatic conditions.

### USES

Sika® Stabilizer-110 AE has been specially developed for Self Compacting Concrete (SCC) and can also be used for other concrete applications, where improved stability during transportation and placing is required. Sika® Stabilizer-110 AE improves the fresh concrete properties of mixes with varying fines content, low cement content or concrete mixes with unfavourable grading curves.

### TECHNICAL INFORMATION

#### Concreting guidance

The standard rules of good concreting practice for production and placing must be observed when using Sika® Stabilizer-110 AE 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.

### FEATURES

Sika® Stabilizer-110 AE 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® Stabilizer-110 AE 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® Stabilizer-110 AE 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 INFORMATION

Packaging	210 L drums
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 +50°C. Mix well before using.
Appearance and colour	Brown liquid
Density	~1.01 kg/l (+25°C)
Total chloride ion content	Nil (EN 934-2)

## APPLICATION INFORMATION

Recommended dosage	Sika® Stabilizer-110 AE is batched on the total of fines below 0.1 mm and is recommended between 0.1 - 0.5 % by weight of fines. Other dosages can be used depending on the mix design, raw materials, climatic conditions and concrete requirements. Please consult our Sika Technical Department.
Dispensing	Sika® Stabilizer-110 AE is a ready-to-use liquid admixture, which should be added to the concrete during the mixing process together with the water. This is particularly important in order to obtain maximum efficiency. For best performance it is advisable to continue mixing until the mix is completely homogeneous.
Compatibility	Sika® Stabilizer-110 AE is suitable for mixes containing all types of cement and supplementary cementitious materials such as: Microsilica (Silica Fume), Fly Ash (PFA), GGBS (Ground Granulated Blast Furnace Slag) and the following Sika products: <ul style="list-style-type: none"><li>▪ Sika® ViscoCrete®</li><li>▪ SikaPlast®</li><li>▪ SikaPump®</li><li>▪ Sika® FerroGard®</li><li>▪ SikaFume®</li><li>▪ SikaFiber®</li><li>▪ Sika® Aer</li><li>▪ Sika® Stabilizer</li><li>▪ SikaControl®</li></ul> We recommend that trial mixes be performed to establish the required performance when combining Sika® Stabilizer-110 AE with the above products or other admixtures. Please consult our Sika Technical Department.

## 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.

## FURTHER DOCUMENTATION

For Light Weight Concrete, the recommended application of Sika® Stabilizer-110 AE to reduce air loss during pumping is:

Density	Dosage
≤ 1000 kg/m <sup>3</sup>	2-3 L
> 1000 kg/m <sup>3</sup>	1-2 L

## IMPORTANT CONSIDERATIONS

- When using Sika® Stabilizer-110 AE a mix design must be selected for the local material sources used and trial mixes performed to verify suitability.
- Sika® Stabilizer-110 AE should not be added to dry cement.
- The rheological behaviour induced by Sika® Stabilizer-110 AE is optimised when used in combination with Sika® ViscoCrete® superplasticizer. It is incompatible for use with naphthalene sulphonate based superplasticizers.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## 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 exact product data and uses.

## 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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- Master Builders Solutions LLC

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 ISO 45001.



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