

PRODUCT DATA SHEET

Sika® Stabilizer-110 MM

(formerly MasterMatrix® 110)

High-performance viscosity modifying agent (VMA)

DESCRIPTION

Sika® Stabilizer-110 MM is a ready to use liquid based viscosity modifying admixture. Sika® Stabilizer-110 MM improves stability and segregation resistance of concrete mixes resulting in improved surface quality and aesthetics. Sika® Stabilizer-110 MM is suitable for various types of concrete. Sika® Stabilizer-110 MM 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 MM 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 MM 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® Stabilizer-110 MM improves the fresh concrete properties of mixes with varying fines content, low cement content or concrete mixes with unfavourable grading curves.

Sika® Stabilizer-110 MM used for:

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

PRODUCT INFORMATION

Packaging

Drums

Shelf life

12 months from date of production if stored properly

FEATURES

Sika® Stabilizer-110 MM 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 MM 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 MM 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.

Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5°C and +50°C. Protect from direct unlight and frost. Mix well before using.
Appearance and colour	Brown liquid
Density	~1.01 kg/l (+25 °C)
Total chloride ion content	<0.1%

TECHNICAL INFORMATION

Concreting guidance	The standard rules of good concreting practice for production and placing must be observed when using Sika® Stabilizer-110 MM 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.
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APPLICATION INFORMATION

Recommended dosage	0.1 - 0.5 % by weight of binder Other dosages by weight of binder may 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.
Dispensing	Sika® Stabilizer-110 MM 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 to obtain maximum efficiency. For best performance it is advisable to continue mixing until the mix is completely homogeneous.
Compatibility	Sika® Stabilizer-110 MM is compatible with all types of cements and may be combined with many other Sika products. The rheological behaviour induced by Sika® Stabilizer-110 MM is optimised when used in combination with Sika® ViscoCrete® based superplasticizers. We recommend to perform trial mixes to establish the required performance when combining Sika® Stabilizer-110 MM with other admixtures. Please consult with our Technical Service 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.
- Internal Reference - Version: MBS_CC-UAE/ M_Mat-rix_110_04_08/v1/12_13/v2/05_19/v3/10_20

FURTHER INFORMATION

For light weight concrete, it is recommended to use Sika® Stabilizer-110 MM to reduce air loss during pumping as per the below table

Density	Dosage
≤ 1,000 kg/m ³	2–3 L
> 1,000 kg/m ³	1–2 L

IMPORTANT CONSIDERATIONS

- Sika® Stabilizer-110 MM is not compatible with naphthalene sulphonated based superplasticizers.
- When using Sika® Stabilizer-110 MM a mix design must be selected for the local material sources used and trial mixes performed to verify suitability.
- Before pouring, suitability tests on the fresh concrete must be carried out.
- If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing.
- Sika® Stabilizer-110 MM should not be added to dry cement.
- When accidental overdosage occurs retardation of initial set will be observed. In case the setting time of concrete is extended, if cured properly, other properties may not be affected and higher ultimate strength is visualized.

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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ISO 9001, 14001, 45001 – SGS
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ISO 9001, 14001 – SGS
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-Sika MB Construction Chemicals 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 ISO 45001.



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