

PRODUCT DATA SHEET

SikaControl®-100 AER

(formerly MasterAir® 100)

Air Entraining Concrete Admixture

DESCRIPTION

SikaControl®-100 AER is a ready to use highly concentrated, air entraining concrete admixture. Its efficiency is based upon the number of correctly sized and evenly distributed air pores imparted to the concrete. Suitable for use in tropical and hot climatic conditions.

USES

SikaControl®-100 AER is used to produce easily workable and durable concrete for:

- Low slump concrete
- Roads
- Runways and taxiways
- Aprons and hard standings
- Dams and reservoirs
- Mass concrete structures
- Cold rooms and freezers

FEATURES

SikaControl®-100 AER provides the following properties:

- Increased freeze / thaw resistance
- Improved workability and plasticity
- Improved durability
- Increased cohesion reducing the risk of segregation
- Reduced water content without loss of workability

CERTIFICATES AND TEST REPORTS

SikaControl®-100 AER meets the main requirements of:

- ASTM C-260-86
- AASHTO M-154
- CRD-C 13-77
- BS 5075: 1982 Part 2
- DIN 1048 Part 1

PRODUCT INFORMATION

Packaging	Drums, 1,000 L flowbin or in bulk.
Shelf life	12 months from date of manufacture, if stored in a closed container in correct storage conditions.
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +2°C and +50°C. Mix well before using.
Appearance and colour	Brown liquid
Density	~1.01 kg/l (+25°C)
pH-Value	10.5 – 12.5
Total chloride ion content	Nil (EN 934)

TECHNICAL INFORMATION

Concreting guidance

The standard rules of good concreting practice for production and placing must be observed when using SikaControl®-100 AER 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

0.02–0.15 % by weight of cement.

Exact dosage rates are determined by air meter tests in trial mixes. Factors affecting air content include : type, grading and proportion of sand, cement and aggregates. Cement content per cubic metre. Type and fineness of cement. Water cement ratio and temperature. In certain cases therefore, it may be necessary to increase the 0.15 % dosage rate. Air meter tests should be taken consistently and adjustments made to the dosage rate in order to completely control the amount of air entrainment, which should be normally in the range of 3 – 6 %.

Dispensing

As stated in ACI 212 and other publications, when two or more admixtures are used, they must be added to the mix separately (through dispensers or manually) and must not be mixed with each other prior to adding to the concrete mix.

For optimum, consistent performance, the air-entraining admixture should be dispensed on damp, fine aggregate.

Add SikaControl®-100 AER admixture to the concrete mix using a dispenser designed for air-entraining admixtures; or add manually using a suitable measuring device that ensures accuracy within ± 3 % of the required amount.

Compatibility

SikaControl®-100 AER is compatible with concrete containing other admixtures or admixture systems - water-reducers, high-range water reducers, accelerators, retarders, densifiers and water repellents.

Increased air contents generally have a detrimental effect on strengths.

This can be adequately catered for by using SikaPlast®, Sika® ViscoCrete®, Sikament® or Plastiment® as water reducer admixture for concrete.

It is compatible with sulfate resistant cement. Please consult our Sika Technical Department for any special usage.

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/Air_100_01_95/v2/03_16/v3/09_22

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.

IMPORTANT CONSIDERATIONS

Do not use pressurised air for agitation.

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.

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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- Sika MB Construction Chemicals LLC
- 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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