BUILDING TRUST

PRODUCT DATA SHEET

SikaControl®-100 AER

(formerly MasterAir® 100)

Air-entraining admixture for concrete

DESCRIPTION

SikaControl®-100 AER is an air-entraining admixture, which creates ultra-stable air bubbles that are strong, small and closely spaced.

USES

Entraining a controlled air content in a wide range of concrete types:
- Normal mix designs.
- Low slump concrete.
- Concrete containing high carbon content fly ash.
- Concrete containing large amounts of fine materials.
- Concrete using high-alkali cements.
- High temperature concrete.
- Concrete with extended mixing times.

CHARACTERISTICS / ADVANTAGES

SikaControl®-100 AER is especially useful in the types of concrete known for their difficulty to entrain and maintain the air content desired. Entrainment of the optimum air content in concrete results in the following improvements to quality:
- Increased freeze / thaw resistance.
- Reduced permeability - increased watertightness.
- Reduced segregation and bleeding.
- Improved plasticity and workability.
- Increased resistance to scaling.
- Greatly improved stability of air entrainment.
- Ready to use – solution is at optimum strength for accurate dispensing.

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. It also increases the entrained air content of concrete made with air-entraining Portland Cement.
The use of SikaControl®-100 AER with Sika admixtures forms a desirable combination for producing the highest quality, normal or lightweight concrete

APPROVALS / STANDARDS

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

PRODUCT INFORMATION

Packaging	SikaControl®-100 AER is available in 20L and 1000 litre IBCs or in bulk.
Shelf Life	12 months from date of manufacture, if stored in a closed container in correct storage conditions.
Storage Conditions	SikaControl®-100 AER admixture should be stored and dispensed at 2°C or higher. Although freezing does not harm this product, precautions should be taken to protect it from freezing. If it freezes, thaw and reconstitute by mild mechanical agitation. Do not use pressurised air for agitation.
Appearance / Colour	Yellowish liquid
Density	0.980 – 1.020
pH-Value	10.5 – 12.5
Total Chloride Ion Content	Nil to BS 5075:1982

APPLICATION INFORMATION

Recommended Dosage	There is no standard dosage rate for SikaControl®-100 AER admixture. The exact quantity of air-entraining admixtures needed should be determined by trial mixes. Factors are: temperature, cement, sand grading, sandaggregate ratio, slump, means of conveying and placement, use of extra fine materials such as fly ash and micro silica. The amount of SikaControl®-100 AER admixture used will depend upon the amount of entrained air required under actual job conditions. **In a trial mix, use 100ml / 100kg of cement** and adjust in the light of result obtained. In mixes containing water-reducing, set-controlling admixtures, the amount of SikaControl®-100 AER needed is somewhat less than the amount required in plain concrete.
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 airentraining 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.

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

SikaControl®-100 AER is a caustic solution. In case of contact with skin, eyes or clothing, immediately flush the exposed area with water for at least 15 minutes. Remove contaminated clothing and shoes. Call a doctor - especially if contact is with eyes. Wash clothing before re-use and discard shoes. Always keep the product out of the reach of children. Please consult the Saftey Data Sheet (SDS) for detailed information.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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