

PRODUCT DATA SHEET

SikaControl®-111 AER

(formerly MasterAir® 111)

Air-entraining agent for concrete

DESCRIPTION

SikaControl®-111 AER is an air-entraining admixture, which creates microscopic air bubbles that are strong, small and closely spaced. These air bubbles improve the plasticity of the fresh concrete and reduce the sulphate attack and water penetration of the cured concrete.

USES

Entraining controlled air bubbles in a wide range of concrete types such as:

Airport runways

Road works

Normal mix designs to reduce bleeding and improve cohesive properties

Concrete containing big quantity of fine materials

Mass concrete, such as dams, to improve and ease placing, compaction.

FEATURES

Helps to reduce the w/c ratio

Reduce segregation

Reduce bleeding

Increase resistance of the hardened concrete to sulphate and frost

Increase workability

Improves surface finish

Enables air-entrainment level of approximately

8.5±1% into concrete mixes without loss in strength

Cohesiveness of the concrete mix will help concrete placing

CERTIFICATES AND TEST REPORTS

SikaControl®-111 AER meets the requirements of:

ASTM C-260-86

ASTM C494, Type A and D

AASHTO M-154

CRD-C 13-77

BS 5075: 1982, Part 2

PRODUCT INFORMATION

Packaging	SikaControl®-111 AER is available in 210 litre drums.
Shelf life	SikaControl®-111 AER Up to 12 months if stored according to manufacturer's instructions in unopened containers.
Storage conditions	SikaControl®-111 AER admixtures 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 - Group in many countries. use pressurised air for agitation.
Appearance and colour	Dark brown
Density	1.07 - 1.08 at 25°C
pH-Value	6-8

APPLICATION INFORMATION

Recommended dosage

SikaControl®-111 AER is added to the concrete mix in such a quantity that will produce the required effect in the concrete.

The exact quantity of SikaControl®-111 AER should be determined by several trial mixes keeping in mind that the following factors will affect concrete in the wet state: w/c ratio; concrete and ambient temperatures; cement content; sand to aggregate ratio; sand grading; method of placement.

The required amount of air is generally obtained by the addition of 0.4-1 ltr /100kg of cement.

Compatibility

SikaControl®-111 AER is compatible with concrete containing MasterRheobuild and MasterPozzolith admixtures produced by Master Builders Solutions . It is also compatible with all brands of Portland cement available in Egyptian market.

The use of SikaControl®-111 AER with Master Builders Solutions admixtures forms a desirable combination for producing the highest quality, normal or lightweight concrete.

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

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

APPLICATION

SikaControl®-111 AER should be added to the concrete mix during the mixing cycle at the same time as the water or the aggregate. For optimum performance, SikaControl®-111 AER should be added to damp, fine aggregate.

As stated in ACI 212 and other publications, when two or more admixtures are used, they must be added to the mix separately and must not be mixed with each other prior to adding to the concrete mix. Never add SikaControl®-111 AER to dry cement. No extension to normal mixing time is necessary.

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. It may be necessary to adapt the above disclaimer to specific local laws and reg-

ulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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SikaControl-111AER-en-EG-(04-2024)-1-1.pdf

Product Data Sheet
SikaControl®-111 AER
April 2024, Version 01.01
02140300000002028

