

## PRODUCT DATA SHEET

# SikaRapid® AC 500

(formerly MasterCrete® AC 500)

Activator for the production of geopolymer concrete

## DESCRIPTION

SikaRapid® AC 500 is an innovative activator and is specially engineered for geopolymer concrete. SikaRapid® AC 500 is formulated from unique polymers. SikaRapid® AC 500 allows the production of mass geopolymer concrete with reduced heat of hydration as well as curing requirements. Suitable for use in hot and tropical climatic conditions.

## USES

SikaRapid® AC 500 is used for the production of geopolymer concrete.

## FEATURES

SikaRapid® AC 500 offers the following benefits for the geopolymer concrete:

- Production of highly flowable, robust selfcompacting geopolymer concrete having a low water binder ratio along with an optimal rheology
- Enhanced robustness and consistency in concrete quality with low stickiness
- Environmentally friendly, CO<sub>2</sub> reduced mixdesign optimization (when compared to traditional concrete containing Portland cements)
- Reduction of heat curing
- Improved surface appearance

## CERTIFICATES AND TEST REPORTS

SikaRapid® AC 500 follows the requirements of ASTM C494; Type S and EN 934-2

## PRODUCT INFORMATION

Packaging	Bulk supply
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	Clear to milky liquid
Density	1.145 – 1.155 kg/l (+25°C)
pH-Value	13.0 – 14.0
Total chloride ion content	Nil (EN 934-2)

# APPLICATION INFORMATION

<b>Recommended dosage</b>	4.0 - 8.0 % by weight of binder Other dosages by weight of binder can 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. Please consult our Sika Technical Department.
<b>Dispensing</b>	SikaRapid® AC 500 is a ready-to-use admixture to be added to the concrete as a separate component. Optimal result is obtained if SikaRapid® AC 500 is poured into the concrete mix right after the addition of the first 80% of the mixing water, i.e. when all solids are wetted. Avoid adding the admixture to the dry aggregates.
<b>Compatibility</b>	SikaRapid® AC 500 is suitable for mixes containing supplementary cementitious materials such as: Microsilica (Silica Fume), Fly Ash (PFA), GGBS (Ground Granulated Blast Furnace Slag) and other supplementary cementitious binders.

## 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/ Crete AC\_500\_01\_20/v1/02\_22

## IMPORTANT CONSIDERATIONS

- SikaRapid® AC 500 should be used only with Sika® Plastiment®-1000 MC superplasticiser.
- SikaRapid® AC 500 is not compatible with Portland cements.

## 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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-Sika Gulf B.S.C. (c)  
ISO 9001, 14001 - SGS  
-Sika Saudi Arabia Limited  
ISO 9001, 14001 - TÜV  
-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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