

PRODUCT DATA SHEET

SikaGrind® AE 5101

(formerly MasterCem® AE 5101)

Cement additive engineered for air entraining and plasticizing of masonry cement.

DESCRIPTION

SikaGrind® AE 5101 is a liquid, ready-to-use additive for masonry cement or other cements requiring air entraining.

Cements produced with SikaGrind® AE 5101, once mixed with water, show an air entrainment in the range of 10 - 20 %. The air bubbles are properly sized and well dispersed in the paste, acting as tiny, flexible ball bearings. As a consequence, the fresh paste is better workable, easier to place, and with better cohesion, allowing great savings in application time. This has particularly an advantage in vertical walls application. SikaGrind® AE 5101 also increases the water retention of the fresh paste that hardens in a more controlled way without breaks and cracks leading to greater resistance to freeze and thaw.

In addition to acting as an air entrainer, SikaGrind® AE 5101 works as a grinding aid and pack-set inhibitor, with positive impact on grinding efficiency, cement conveyance and storage.

USES

SikaGrind® AE 5101 is developed for application in the cement grinding process in:

- Ball mills (closed and open circuit)
- Vertical mills
- Other cement grinding systems

PRODUCT INFORMATION

Packaging	SikaGrind® AE 5101 is available in bulk and Intermediate Bulk Container (IBC)
Shelf life	If stored in unopened containers according to manufacturer's instructions, the shelf life is a minimum of 12 months.
Storage conditions	It is recommended to store SikaGrind® AE 5101 at temperatures above 5°C. Pipes should be thermally isolated.

FEATURES

SikaGrind® AE 5101 is compatible with all types of cements and offers the following benefits to cement producers :

- Enhanced mortar paste workability due to the air entraining effect. Faster mixing and application, with fewer efforts for workers and better cohesion to walls. Reduced bleeding and segregation.
- Improved plaster quality (less cracks) and durability, due to better water retention and more regular hardening.
- Cost reduction and optimized cement operations, due to lower unit grinding energy (kWh/t), faster conveyance and optimized storage.

CERTIFICATES AND TEST REPORTS

SikaGrind® AE 5101 fulfills the European cement standard EN 197-1, EN 459-1 and EN 459-2.

Appearance and colour	Brown liquid
Density	1.00 – 1.03 g/cm ³ at 25°C
pH-Value	7–9
Total chloride ion content	< 0.5 %

APPLICATION INFORMATION

Compatibility	SikaGrind® AE 5101 is compatible with all types of cements, including Ordinary Portland Cements and composite cements.
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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.

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 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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