

## PRODUCT DATA SHEET

# SikaGrind® GA 1311

(formerly MasterCem® GA 1311)

High Performance Cement Additive to Increase Grinding Efficiency and Inhibit Pack Set of Cement

### DESCRIPTION

SikaGrind® GA 1311 is specially formulated as a high-performance grinding aid and pack set inhibitor for Portland cement and other hydraulic cements. It is based on modified hydroxylated compound mixtures. SikaGrind® GA 1311 is compatible with all types of cement.

### USES

- Ordinary Portland cement
- Other Hydraulic cement

The special characteristics of SikaGrind® GA 1311 allow it to be effectively used in the cement plants that constantly have problems with hard and hot clinkers.

### CHARACTERISTICS / ADVANTAGES

SikaGrind® GA 1311 effectively reduces the agglomeration between cement particles inside the cement mill. It is one of the most effective dispersants that improves the efficiency of grinding process by reducing the surface energy forces of cement particles and creating electrostatic repulsion between cement particles. This phenomenon contributes to the following:

- Boost up clinker breaking property effectively.
- Increased cement mill output at the same cement fineness from 8% to 30%.
- Reduced total cement grinding costs per ton of cement.
- Improved cement strength by improving the cement particles size distribution.
- Improved cement dry flowability.
- Reduced cement mill grinding temperature which can help in maintaining the quality of cements.

### APPROVALS / STANDARDS

It complies with ASTM C465-99 as a non-harmful processing additive.

### PRODUCT INFORMATION

<b>Packaging</b>	SikaGrind® GA 1311 is supplied in bulk delivery of 1080kg IBC tanks.
<b>Shelf Life</b>	12 months from date of production if stored in unopened, undamaged and original sealed packaging.
<b>Storage Conditions</b>	SikaGrind® GA 1311 should be stored at temperatures above 5°C, in tightly sealed original packaging. If found to be frozen thaw it at 20°C and reconstitute by stirring.
<b>Appearance / Colour</b>	Light to Dark brown liquid
<b>Specific gravity</b>	1.060-1.120 at 25°C

## APPLICATION INFORMATION

### Recommended Dosage

The typical dosage rate for SikaGrind® GA 1311 is as per the table below:

Type of Cement	Blaine Surface Area (cm <sup>2</sup> /gram)	Dosage Rate (gram/ton)
Ordinary Portland	2800- 3200	150-300
Ordinary Portland	3200-3500	200-400
Other Hydraulic cements	3500-4000	200-400
Other Hydraulic ce- ments	>4000	300-500

The grindability of cement is influenced by the chemical and physical composition of the basic ingredients of the cement, grinding process and clinker characteristics. Trial at the laboratory scale is recommended to determine the optimum dosage required to achieve any specific requirement.

## 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

SikaGrind® GA 1311 can be added at the clinker feed conveyer belt or directly into the cement mill's first compartment. A proper dosing pump is required to ensure the correct dosage into the cement for obtaining the optimum performance.

## 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.

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