

## PRODUCT DATA SHEET

# SikaGrind<sup>®</sup>-109 KH

## STRENGTH ENHANCING GRINDING AID FOR THE PRODUCTION OF CEMENT

### DESCRIPTION

SikaGrind<sup>®</sup>-109 KH is a liquid cement grinding aid with performance enhancing properties.

SikaGrind<sup>®</sup>-109 KH has been specifically designed to increase the output of cement grinding plants and obtain improved early strength development for cements.

### USES

- Improve the production rate of the cement grinding system.
- Increased early strengths after 1, 3, and 7 days.
- Reduced water demand.

### CHARACTERISTICS / ADVANTAGES

SikaGrind<sup>®</sup>-109 KH is a dispersant with the following characteristics:

- Neutralisation of electrical charges on the surface of the cement particles.
- Separation of the cement particles.

SikaGrind<sup>®</sup>-109 KH provides the following advantages in the cement production:

- Enhanced grinding properties of the cement mill due to less accumulation of material on grinding balls and mill-liners.
- Higher separator efficiency due to improved cement particle dispersion/
- Reduced relative power consumption per ton of cement due to increased output of the grinding system (tons per hour)/
- Easier achievement of the desired cement fineness (Blaine, particle fraction > 32µm, granulometry) due to reduced re-agglomeration of the sufficiently ground cement particles.
- Minimized problems with “plugging” due to improved powder flow characteristics.

SikaGrind<sup>®</sup>-109 KH gives the following advantages to the finished cement:

- Reduced quantity of “over-milled” particles in the cement granulometry.
- Easier discharge of the silos.
- Economic cement design with clinker replacements.

### PRODUCT INFORMATION

Composition	Aqueous blend of minerals and polymers
Packaging	1,000 kg IBC
Appearance / Colour	Brown Liquid
Shelf life	At least 12 months in undamaged, unopened and sealed original containers when stored at temperatures between +5°C and +35°C.
Storage conditions	Protect from frost, direct sunlight and contamination. Note: When delivered in bulk, the tanks and equipment used must be free from contaminants.

<b>Specific Gravity</b>	1.170 - 1.190 kg/cm <sup>3</sup> (at +25°C)
<b>pH-Value</b>	7.5 - 9.5
<b>Total Chloride Ion Content</b>	7.9%.(+/-1%) <0.01% in treated cement.
<b>Recommended Dosage</b>	Typical dosage rates of SikaGrind®-109 KH is between 0.4 – 1.2 kg per ton of cement (0.04% - 0.12% of total weight = cement clinker + additions). The optimum dosage to achieve the desired characteristics shall be determined in Plant trials. Influencing factors are e.g. the properties of clinker source, type of cement and other plant variables. For consistent results, SikaGrind®-109 KH must be accurately dispensed.
<b>Compatibility</b>	Cements treated with SikaGrind®-109 KH are compatible in concretes produced with all commercial admixtures including air entrainers, water reducers, retarders, and super plasticizers. The performance of concrete admixtures is not adversely affected by the use of SikaGrind®-100 Series.
<b>Dispensing</b>	SikaGrind®-109 KH is added onto the clinker feed shortly before the mill entrance or directly into the grinding mill (first or second compartment). Suitable dosage pumps with adjustable flow rates shall be used for accurate dosing. Note: Periodically, the end of the additive tube/hose shall be checked to ensure that it is not blocked.

## 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.

## 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 the exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

### 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.

#### Sika (Cambodia) Ltd.

Legacy Business Center, Building #29  
street 245  
Sangkat Tuol Tom Poug 2, Khan  
Chamkarmorn  
12308, Phnom Penh, Cambodia  
Tel: +855 23 901 450

#### PRODUCT DATA SHEET

SikaGrind®-109 KH  
March 2020, Version 01.02  
02140702100000557

SikaGrind-109KH-en-KH-(03-2020)-1-2.pdf