

# PRODUCT DATA SHEET

## SikaGrind<sup>®</sup>-500

### EFFICIENT GRINDING AID & PERFORMANCE ENHANCER FOR CEMENT

#### DESCRIPTION

SikaGrind<sup>®</sup>-500 is a chloride free liquid cement grinding aid with performance enhancing properties. It increases the production and enhances the strength development.

#### USES

SikaGrind<sup>®</sup>-500, due to its composition, is especially suitable for:

- Improving the production rate of the cement grinding system
- Increasing the strength of blended cements that contain non-active supplementary materials

#### CHARACTERISTICS / ADVANTAGES

SikaGrind<sup>®</sup>-500 is a very efficient grinding agent that offer the following characteristics during cement production:

- Neutralisation of electrical charges on the surface of the cement particles, reducing thus re-agglomeration of already ground cement particles (better dispersion), as well as less coating (accumulation of material) on grinding media and mill internals
- Optimization of cement granulometry, reducing the quantity of over-milled particles
- Improvement of the equipment efficiency (mill and separator), providing important production increase and energy savings
- Activation of the clinker hydrate products, enhancing strength at all ages
- Easier handling (pneumatic transport, charge/ discharge operations, bagging), due to improved cement flowability
- Allows economic cement design with clinker replacements

#### APPROVALS / CERTIFICATES

SikaGrind<sup>®</sup>-500 is produced under Quality management systems according to EN ISO 9001.

#### PRODUCT INFORMATION

<b>Chemical base</b>	Aqueous solution of modified aminoalcohols and carboxylic derivatives
<b>Packaging</b>	IBC Bulk supply upon demand
<b>Appearance / Colour</b>	Liquid, brown
<b>Shelf life</b>	12 months from date of production
<b>Storage conditions</b>	Store in undamaged, unopened and sealed original containers, at temperatures between +5°C and +35°C. Protect from frost, direct sunlight and contamination. Note: When delivered in bulk, the tanks and equipment used must be free from contaminants.

Density	~ 1.10 kg/l (at +20°C)
pH-Value	~ 8.0
Total Chloride Ion Content	Free

## APPLICATION INFORMATION

<b>Recommended Dosage</b>	Typical dosage rates of SikaGrind®-500 are between 0.3 -0.5 kg per tonne of cement (0.03% - 0.05% 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®-500 must be accurately dispensed.
<b>Compatibility</b>	Cements treated with SikaGrind®-500 are compatible in concretes produced with all commercial admixtures including air entrainers, water reducers, retarders and superplasticizers. The performance of concrete admixtures is not adversely affected by the use of SikaGrind®-500.
<b>Dispensing</b>	SikaGrind®-500 shall be 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 Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## 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.

## 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.

## 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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SikaGrind-500\_en\_GR\_(12-2017)\_1\_1.pdf

Product Data Sheet  
 SikaGrind®-500  
 December 2017, Version 01.01  
 021407021000000011