

## SikaGrind®-BG1

Efficient grinding aid, strength enhancer for the production of cement

<b>Product Description</b>	SikaGrind®-BG 1 is a chloride free liquid cement grinding aid with performance enhancing properties. SikaGrind®-BG1 has been specifically designed to increase the output of cement grinding plants and obtain improved early strength development for cements with high amount of clinker replacements.
<b>Uses</b>	<ul style="list-style-type: none"><li>■ Improve the production rate of the cement grinding system</li><li>■ Increase the early strength of cement</li></ul>
<b>Characteristics / Advantages</b>	<p><i>SikaGrind®-BG1 is a dispersant with the following characteristics:</i></p> <ul style="list-style-type: none"><li>■ Neutralisation of electrical charges on the surface of the cement particles</li><li>■ Reduced agglomeration of ground cement particles (better dispersion)</li><li>■ Less coating (accumulation of material) on grinding media and mill internals</li></ul> <p><i>SikaGrind®-BG1 provides the following advantages in the cement production:</i></p> <ul style="list-style-type: none"><li>■ Enhanced grinding performance of the cement mill</li><li>■ Higher separator efficiency</li><li>■ Higher mill output (tons per hour)</li><li>■ Reduced relative power consumption per ton of cement</li><li>■ Easier achievement of the desired cement fineness (Blaine, particle fraction &gt; 32µm, granulometry)</li><li>■ Minimized problems with “plugging” due to improved powder flow characteristics</li></ul> <p><i>SikaGrind®-BG1 gives the following advantages to the finished cement:</i></p> <ul style="list-style-type: none"><li>■ Reduced quantity of “over-milled” particles in the cement granulometry</li><li>■ Easier discharge of the silos</li><li>■ Increased early strengths after 1 and 2 days</li><li>■ Increased strengths</li><li>■ Economic cement design with clinker replacements</li></ul>
<b>Tests</b>	
<b>Self-Declaration</b>	SikaGrind®-BG1 is produced in our factories under Quality management systems according to EN ISO 9001.



## Product Data

### Form

**Appearance / Colour** Clear Brown liquid

**Packaging** 200 kg non returnable steel drum  
1000 kg IBC  
Bulk upon request

## Storage

**Storage Conditions / Shelf -Life** At least 12 months in undamaged, unopened and sealed original containers when stored 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.

## Technical Data

**Chemical Base** Aqueous colourless solution

**Density** 1.07 +/- 0.05 kg/l (at +20°C)

**pH Value** At 20°C : 10-12

## System Information

### Application Details

**Dosage** Typical dosage rates of SikaGrind®-BG1 are between 0.2 - 0.8 kg per tonne of cement (0.02% - 0.08% 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® -BG 1 must be accurately dispensed.

## Application Conditions / Limitations

**Compatibility** Cements treated with SikaGrind®-BG1 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®-BG1.

## Application Instructions

**Dispensing** SikaGrind®-BG1 is added into the grinding mill (first or second compartment), onto the clinker feeding channel or sprinkled / dropped onto the clinker (raw material) on the conveyor belt. Suitable dosage pumps with adjustable flow rates should be used for accurate dosing.

Note: Periodically, the end of the additive tube/hose should be checked to ensure, that it is not blocked.



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## Value Base

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.

## Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet 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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