



# PRODUCT DATA SHEET

## SikaGrind®-455 GNT

### GRINDING AID FOR CEMENT PRODUCTION

#### PRODUCT DESCRIPTION

SikaGrind®-455 GNT is a non-chloride based, cost effective grinding aid for portland cement and other hydraulic cements. It is designed to improve the efficiency of the grinding process and can reduce the energy needed for grinding clinker.

#### WHERE TO USE

SikaGrind®-455 GNT is used in cement mills, during the grinding process of the clinker.

#### CHARACTERISTICS / ADVANTAGES

SikaGrind®-455 GNT provides the following advantages in the cement production:

- Increases production rate (tons per hour)
- Improves grinding efficiency
- Improves separator efficiency due to improved dispersion

- Allows for a faster achievement of the desired cement fineness
- Reduces particle fraction > 32µ of the ground cement
- Reduces re-agglomeration of the cement particles
- Reduces the accumulation of material on grinding equipment (grinding balls and mill)
- Reduces relative energy consumption per ton of cement
- Facilitates product handling and minimizes “plugging” issues due to improved flow characteristics

SikaGrind®-455 GNT provides the following advantages to the finished cement:

- Reduces handling costs especially on pneumatic conveying systems
- Facilitates the discharge of silos
- Improves self-levelling of the cement in the silo
- Improves cement granulometry (reduced quantity of “over-milled” particles)

#### APPROVALS / CERTIFICATES

SikaGrind®-455 GNT meets ASTM C465 requirements.

#### PRODUCT INFORMATION

<b>CSC MasterFormat®</b>	<b>03 05 00</b>
<b>Packaging</b>	205 L (54 US gal.) drum 1040 L (275 US gal.) IBC Bulk delivery
<b>Appearance / Colour</b>	Liquid / Clear yellow
<b>Shelf Life</b>	1 year in original unopened container.
<b>Storage Conditions</b>	Store dry at temperatures between 5 °C and 27 °C (40 °F - 80 °F). Condition product above -6 °C (20 °F). Protect from direct sunlight.
<b>Specific Gravity</b>	1.155 +/- 0.015

## APPLICATION INFORMATION

### Recommended Dosage

The dosage rate of SikaGrind®-455 GNT will depend on desired characteristics of each type of cement. Dosage rates typically range from 0.02 % to 0.08 % by weight of cement for Types GU & MS cements and from 0.03 % to 0.09 % by weight of cement for Type HE cements. The optimum dosage rate should be determined during full-scale cement mill tests. A trained Sika representative is available to assist in dosage calculations and mill test evaluations.

### Mixing

#### Mixing

SikaGrind®-455 GNT should be dispensed as received. SikaGrind®-455 GNT must be accurately dispensed to ensure consistent results. Proper dispensing equipment with adjustable flow rates should be used for optimum performance. SikaGrind®-455 GNT may be added onto the clinker conveyor belt or sprayed into the mills first compartment. Sika representative is available to assist with recommendations on your mill system.

**Note:** The end of the dispensing tube/hose shall be checked and cleaned periodically to ensure it is not blocked and amount of grinding aid is added in proper dosage rates.

## BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

## ENVIRONMENT, HEALTH & 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

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