

## PRODUCT DATA SHEET

# SikaGrind® ES 2156

(formerly MCem ES 2156)

Cement additive engineered for enhancement of cement early strength and reduction of unit grinding energy / increase of cement mill throughput

### DESCRIPTION

SikaGrind® ES 2156 is a liquid, ready-to-use cement additive designed to enhance cement performance. In addition to acting as a Grinding Aid in the milling process and a flow aid in cement conveyance, SikaGrind® ES 2156 improves specific cement properties by the activity of its chemical components. These act in the modification of clinker characteristics and in the enhancement of its hydraulic properties. SikaGrind® ES 2156 improves the flow characteristics of cement with positive impact on cement conveyance and reduction of pack-set in storage.

### USES

SikaGrind® ES 2156 is developed for application in the cement grinding process in:

- Ball mills (closed and open circuits)
- Vertical mills
- Other cement grinding systems

### FEATURES

SikaGrind® ES 2156 is compatible with all types of cements and offers the following benefits to cement producers :

- Cost reduction due to lower unit grinding energy (kWh/t) and optimization of cement fineness and composition while maintaining cement properties.
- Capacity extension due to higher mill throughput and optimized cement recipe.
- Sustainability due to reduced clinker factor and specific CO<sub>2</sub> emissions. Gain of carbon credits.
- Product differentiation due to enhanced cement performance and improved properties for the final application.
- Improved cement handling due to faster cement conveyance through the plant and in the distribution logistics. Reduction of plant stops and optimized storage in silos.
- Improved working environment due to low dust generation during application.

### CERTIFICATES AND TEST REPORTS

SikaGrind® ES 2156 fulfils the European cement standard EN 197.1.

### PRODUCT INFORMATION

<b>Packaging</b>	SikaGrind® ES 2156 is available in bulk and Intermediate Bulk Container (IBC)
<b>Shelf life</b>	If stored in unopened containers according to manufacturer's instructions, the shelf life is a minimum of 12 months.
<b>Storage conditions</b>	It is recommended to store SikaGrind® ES 2156 at temperatures above 5°C. Pipes should be thermally isolated.

<b>Appearance and colour</b>	Brown-yellowish liquid
<b>Density</b>	1.05 - 1.11 g/cm <sup>3</sup> at 25°C
<b>pH-Value</b>	5 - 7
<b>Total chloride ion content</b>	< 12 %

## 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.

## IMPORTANT CONSIDERATIONS

Product performance is dependent on grinding equipment characteristics, process conditions, raw material properties and cement type. To best benefit from cement additives, mill and separator process parameters may need to be adapted.

## ECOLOGY, HEALTH AND 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.

## APPLICATION INSTRUCTIONS

SikaGrind® ES 2156 can be metered onto the mill feeders or injected into the mill. The recommended dosage rate is between 300 - 600 g per ton of cement. Other dosages may be required in specific situations. The optimum dosage should be evaluated in plant trials. For further information please consult Sika Technical Service Department.

Calibrated dosing equipment with an adjustable flow rate and appropriate dosage range is recommended to obtain the maximum performance of the product.

## 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 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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ISO 9001, 14001, 45001 – SGS  
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 -Sika MB Construction Chemicals for Manufacturing LLC  
 -Sika Saudi Arabia Limited  
 -Sika MB Construction Chemicals for Manufacturing LLC  
 -Sika Construction Chemicals for Manufacturing LLC  
 -Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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### Product Data Sheet

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