

## PRODUCT DATA SHEET

# SikaGrind®-277 Optimizer

EFFICIENT GRINDING AND QUALITY IMPROVER FOR CERAMIC TILE

## DESCRIPTION

SikaGrind®-277 Optimizer is a high solid, chloride free liquid form for grinding function of ceramic tile and it helps to create a stable and workable slip (a mixture of clay, water, and other materials).

When combined with feldspar and clay, SikaGrind®-277 Optimizer can improve the strength, durability, and firing properties of the tile and can also lower firing temperatures and potentially reduce shrinkage during the firing process.

## USES

SikaGrind®-277 Optimizer is developed for application in the grinding process and mainly suitable for the manufacture of ceramic tile production.

SikaGrind®-277 Optimizer is a key product in slip preparation. It neutralizes the electrical charges on the clay particles, allowing them to disperse evenly and creating a more fluid slip.

## FEATURES

SikaGrind®-277 Optimizer acts as a binder, strengthening the connection between clay particles and contributing to the overall strength of the fired tile. It can also act as a flux, lowering the melting point of the other materials during firing and promoting a more uniform vitrification.

- **Lower Firing Temperature:**

SikaGrind®-277 Optimizer can help lower the temperature needed for firing, potentially leading to energy savings and reduced production costs.

- **Reduced Shrinkage:**

SikaGrind®-277 Optimizer can help minimize shrinkage during the firing process, resulting in more consistent tile dimensions and reducing the risk of cracking or warping.

- **Improved Vitrification:**

SikaGrind®-277 Optimizer promotes the formation of a glassy phase (vitrification), which contributes to the tile's strength, durability, and impermeability.

## PRODUCT INFORMATION

<b>Packaging</b>	200 kg PE Drum /1000 kg IBC Tank
<b>Appearance and colour</b>	Clear liquid
<b>Shelf life</b>	12 months if stored properly in original unopened packaging
<b>Storage conditions</b>	Store in undamaged, unopened, original sealed packaging in dry conditions. Protect from direct sunlight and frost.
<b>Density</b>	1.30 ~ 1.40 kg/l
<b>pH-Value</b>	11.5 ~ 13.5

# APPLICATION INFORMATION

<b>Recommended dosage</b>	SikaGrind® -277 Optimizer can be metered onto the mill feeders or injected into the mill. The recommended dosage rate is between 0.6 -1.6 kg per 100 kg of ceramic body. Other dosages may be required in specific situations. The optimum dosage should be evaluated in plant trials. For further questions please consult our Technical Service. Calibrated dosing equipment with an adjustable flow rate and appropriate dosage range is recommended to obtain the maximum performance of the product Compatibility.
<b>Compatibility</b>	SikaGrind®-277 Optimizer is compatible with all types of ceramic body.

## 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.

## 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 Material Safety Data Sheet containing 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 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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