

## PRODUCT DATA SHEET

# SikaGrind®-222 Plus PH

### EFFICIENT AND STRENGTH ENHANCING GRINDING AID FOR THE PRODUCTION OF CEMENT

#### DESCRIPTION

SikaGrind®-222 Plus PH has been specifically designed to increase the output of cement grinding plants and obtain improved strength development for Type 1P blended cements.

#### USES

- Improve the production rate of the cement grinding system.
- Increase the strength of the cement.

#### CHARACTERISTICS / ADVANTAGES

SikaGrind®-222 Plus PH is a dispersant with the following characteristics:

- Neutralization of electrical charges on the surface of the cement particle.
- Separation of the cement particles

SikaGrind®-222 Plus PH provides the following advantages in the cement production:

- Enhance grinding properties of the cement mill due to less accumulation of material on grinding balls and mill-liners.
- Higher separator efficiency due to improved cement particle dispersion.
- Reduced relative power consumption per ton of cement due to increased output of the grinding systems (tons per hour).
- Easier achievement of the desired cement fineness (Blaine, particles fraction  $>32\mu\text{m}$ , granulometry) due to reduced re-agglomeration of the sufficiently ground cement particles.
- Minimized problems with "plugging" due to improved powder flow characteristics.

SikaGrind®-222 Plus PH gives the following advantages to the finished cement:

- Reduced quantity of "over-milled particles in the cement granulometry.
- Easier discharge of the silos.
- Increase strengths at all ages.
- Economic cement design with clinker replacements.
- Reduced water for normal consistency.

#### PRODUCT INFORMATION

Chemical Base	Amine Base
Packaging	210 Liter Drum 1000 Liter Bulk
Shelf Life	12 months from the date of production when unopened
Storage Conditions	Stored properly in undamaged, unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight.
Appearance / Colour	Brown liquid
Specific gravity	≈ 1.044 (25°C)

## APPLICATION INFORMATION

<b>Recommended Dosage</b>	Typical dosage rates of SikaGrind®-222 Plus PH are between 0.3 - 1.0 kg per ton of cement (0.03% - 0.10% 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®-222 Plus PH must be accurately dispensed.
<b>Dispensing</b>	SikaGrind®-222 Plus PH is 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.
<b>Compatibility</b>	Cements treated with SikaGrind®-222 Plus PH 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®-222 Plus PH.

## 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.

## 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.

## 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.

## 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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