

PRODUCT DATA SHEET

SikaGrind®-511 (TH) HYC

EFFICIENT GRINDING AID AND QUALITY IMPROVER FOR HYDRAULIC CEMENT

DESCRIPTION

SikaGrind®-511 (TH)-HYC is a liquid cement grinding aid with performance enhancing properties. SikaGrind®-511 (TH)-HYC has been specifically designed to increase the output of cement grinding mill and obtain improved all age strength development for mortar and concrete.

USES

Increase the all age strength of mortar and concrete
Improve the production rate of the cement grinding system

CHARACTERISTICS / ADVANTAGES

SikaGrind®-511 (TH)-HYC is a dispersant with the following characteristics:

- Neutralisation of electrical charges on the surface of the cement particles
- Reduced agglomeration of ground cement particles (better dispersion)
- Less coating (accumulation of material) on grinding media and mill internals

SikaGrind®-511 (TH)-HYC provides the following advantages in the cement production:

- Enhanced 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 system (tons per hour)
- Easier achievement of the desired cement fineness (Blaine, particle fraction > 32µm, granulometry) due to reduced re-agglomeration of the sufficiently ground cement particles
- Minimized problems with “plugging” due to improved powder flow characteristics

SikaGrind®-511 (TH)-HYC gives the following advantages to the finished cement:

- Reduced quantity of “over-milled” particles in the cement granulometry
- Easier discharge of the silos
- Increased all age strength of mortar and concrete
- Economic cement design with clinker replacements

PRODUCT INFORMATION

Composition	Blend of Amines
Packaging	1,000 kg IBC
Appearance / Colour	Light Brown Liquid
Shelf life	12 months in undamaged, unopened and sealed original containers
Storage conditions	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.
Density	1.135 - 1.160 kg/L (at +25°C)

APPLICATION INFORMATION

Recommended Dosage

Typical dosage rates of SikaGrind®-511 (TH)-HYC are between 0.3 - 0.6 kg per ton of cement (0.03% - 0.06% of total weight = cement clinker + additions). The optimum dosage, which changes according to the properties of each clinker source, type of cement, and other plant variables, should be determined in the plant trials according to the desired properties of the cement.

For consistent results, SikaGrind®-511 (TH)-HYC must be accurately dispensed.

Compatibility

Cements treated with SikaGrind®-511 (TH)-HYC are compatible in concretes produced with all commercial admixtures including air entrainers, water reducers, retarders, and super plasticizers. The performance of concrete admixtures is not adversely affected by the use of SikaGrind®-511 (TH)-HYC.

Dispensing

SikaGrind®-511 (TH)-HYC 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.

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.

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.

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.

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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