

# PRODUCT DATA SHEET

# SikaGrind® LS-43

Quality improver and strength enhancer for cement, powered by Sika® ViscoCrete® technology

#### **DESCRIPTION**

SikaGrind® LS-43 is a chloride free, liquid cement additive

SikaGrind® LS-43 has been specifically developed for the production of Portland Limestone Cement. It improves the workability and strength development. SikaGrind® LS-43 is powered by Sika® ViscoCrete® to optimize the efficiency of modern separators and cement mills especially for co-grinding of blended cements

#### **USES**

- Increase the production rate of cement
- Replace clinker with limestone
- Increase the early and final strength of cement
- Improve the workability of concrete

# **CHARACTERISTICS / ADVANTAGES**

SikaGrind® LS-43 provides the following advantages in the cement production:

- Increased production rate
- Easier achievement of the desired cement fineness
- Cost savings due to lower specific power consumption per ton

SikaGrind® LS-43 gives the following advantages to the finished cement:

- Increased strength development at all ages
- Improved workability of concrete
- Improved particle size distribution
- Improved powder flow characteristics and easier discharge of silos
- Economic and ecologic cement design with clinker replacements

# **APPROVALS / CERTIFICATES**

SikaGrind® LS-43 is produced under Quality management systems according to EN ISO 9001.

#### PRODUCT INFORMATION

Composition	Blend of polycarboxylates, amines, carbohydrates and lignosulphonate
Packaging	1000 kg IBC Bulk deliveries
Appearance / Colour	Brown liquid
Shelf life	At least 12 months shelf life from date of production if stored properly in undamaged, unopened, original sealed packaging.
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	1,15 ± 0,05 kg/l (at +20°C)

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SikaGrind® LS-43

August 2020, Version 01.01 021407021000000137

pH-Value	7,5 ± 1,0
Viscosity	< 75 mPas (at +23°C)
Total chloride ion content	< 0,1 M%

#### APPLICATION INFORMATION

Recommended dosage	Typical dosage rates of SikaGrind® LS-43 are between 0.5 - 2 kg per ton of cement (0,05 - 0,2% 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, limestone and other plant variables.  For consistent results, SikaGrind® LS-43 must be accurately dispensed.
Compatibility	Cements treated with SikaGrind® LS-43 are compatible in concretes produced with all commercial admixtures including air entrainers, water reducers, retarders and superplasticizers. The performance of concrete admixtures are not adversely affected by the use of SikaGrind® LS-43.
Dispensing	SikaGrind® LS-43 shall be added onto the clinker feed shortly before the mill entrance or directly into the grinding mill. 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.

### **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

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Product Data Sheet SikaGrind® LS-43 August 2020, Version 01.01 021407021000000137 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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