

## SikaGrind® T1820

Grinding aid and quality improver for the production of cement

<b>Product Description</b>	SikaGrind® T1820 is a chloride free liquid additive to allow easier grinding of cement and enhance the quality of all types of cement. SikaGrind® T1820 has been specifically developed to obtain cements with strongly increased early and final strengths.
<b>Uses</b>	SikaGrind® T1820 is used in the grinding of cement to: <ul style="list-style-type: none"><li>■ Increase the production rate</li><li>■ Improve the efficiency of the mill and separator</li><li>■ Enhance the quality of the cement</li></ul>
<b>Characteristics / Advantages</b>	<p>SikaGrind® T1820 is a very effective dispersant with the following characteristics:</p> <ul style="list-style-type: none"><li>■ Neutralisation of electrical charges on the surface of the cement particles</li><li>■ Separation of the cement particles</li></ul> <p>SikaGrind® T1820 provides the following advantages in the cement production:</p> <ul style="list-style-type: none"><li>■ Higher efficiency of the plants (tons per hour) due to reduced grinding time per ton</li><li>■ Higher separator efficiency due to improved dispersion</li><li>■ Faster achievement of the desired cement fineness</li><li>■ Reduced particle fraction &gt; 32µ of the ground cement</li><li>■ Reduced re-agglomeration of the cement particles</li><li>■ Less accumulation of material on grinding equipment (grinding balls and mill)</li><li>■ Cost savings due to a lower power consumption per ton</li><li>■ Easier handling and minimized problems with “plugging” due to improved flow characteristics</li><li>■ Improved self-levelling of the cement in the silo</li></ul> <p>SikaGrind® T1820 gives the following advantages to the finished cement :</p> <ul style="list-style-type: none"><li>■ Reduced handling costs especially on pneumatic conveying systems</li><li>■ Reduced risk of hydration in the silo</li><li>■ Easier discharge of the silos</li><li>■ Optimum cement granulometry (reduced quantity of “over-milled” particles)</li><li>■ Increased early strengths</li><li>■ Improved final strengths</li><li>■ Allows economic cement design with clinker replacements</li><li>■ Reduced water demand</li><li>■ Uniform air entrainment in the stated dosage range</li><li>■ Consistent setting times</li><li>■ Reduced brown or yellow discolorations</li></ul>

Construction



---

## Tests

---

**Self-Declaration** SikaGrind® T1820 is produced in our factories under Quality management systems according to EN ISO 9001.

---

## Product Data

---

### Form

---

**Appearance / Colours** Clear brown liquid

---

**Packaging** 200 kg non returnable steel drum  
1000 kg IBC  
Bulk upon request

---

### Storage

---

**Storage Conditions / Shelf -Life** At least 12 months in undamaged, unopened and sealed original containers when 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.

---

### Technical Data

---

**Chemical Base** Blend of amines and polymers

---

**Density** 1.04 +/- 0.03 kg/l (at +20°C)

---

**pH Value** 11.0 +/- 1

---

## System Information

---

### Application Details

---

**Dosage** Typical dosage rates of SikaGrind® T1820 are between 0.3 - 0.6 kg per tonne 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 Plant trials according to the desired properties of the cement.

For consistent results, SikaGrind® T1820 must be accurately dispensed.

---

## Application Conditions / Limitations

**Compatibility** Cements treated with SikaGrind® T1820 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® T1820.

## Application Instructions

**Dispensing** SikaGrind® T1820 is added into the grinding mill (first or second compartment), onto the clinker feeding channel or sprinkled / dropped onto the clinker (raw material) on the conveyor belt. Suitable dosage pumps with adjustable flow rates should be used for accurate dosing.

Note: Periodically, the end of the additive tube should be checked to ensure, that it is not blocked with cement clinker/dust.

**Notes** 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.

**Health and Safety Information** **Please insert any additional Standard Health and Safety Information in accordance with local laws and which are not already stated in the safety data sheet. For questions contact your Ecology and Safety-Manager.**

**Protective Measures** Contact with skin and eyes should be avoided.

**Ecology** **Insert local law information**

**Transportation Class** **Insert local law information**

**Important Notes** Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet.

**Toxicity** **Insert local law information**

**Legal Notes** **It may be necessary to adapt this disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.**

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 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request.



Sika Services AG  
Tüffenwies 16  
CH-8048 Zurich  
Switzerland

Phone +41 44 436 40 40  
Telefax +41 44 436 46 86  
www.sika-construction.com

