Sikagrout® Expansive Agent

DESCRIPTION
Sikagrout® Expansive Agent is a ready to use extra expanding grout admixture in powder form. It is non toxic and does not contain chlorides or other ingredients of corrosive nature. By introducing micro bubbles into the mix, it produces wet volume expansion and increased fluidity without segregation. It prevents premature setting and allows a reduction in the amount of gauging water.

USES
Sikagrout® Expansive Agent is special products for the grouting of prestressed cable ducts, bearing plate, tunnel linings and rock and soil anchoring.

CHARACTERISTICS / ADVANTAGES
The use of Sikagrout® Expansive Agent with the grouting mixture has the following advantages:

▪ Improved fluidity
▪ Good strength and adhesion properties.
▪ Increased cohesion
▪ High volume expansion in the wet state
▪ Durable and dense filling of all cavities
▪ Increased frost resistance
▪ Prolonged workability

PRODUCT INFORMATION

<table>
<thead>
<tr>
<th>Packaging</th>
<th>15 kg in plastic bag</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>12 months from date of production if stored in unopened original container.</td>
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<tr>
<td>Storage Conditions</td>
<td>Store in dry, cool, and shaded place</td>
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<tr>
<td>Bulk Density</td>
<td>~0.83 kg/L</td>
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<tr>
<td>Expansion</td>
<td>1 – 3% depending on dosage</td>
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</tbody>
</table>

APPLICATION INFORMATION

<table>
<thead>
<tr>
<th>Recommended Dosage</th>
<th>0.30 – 0.60 % of cement (by weight)</th>
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<tbody>
<tr>
<td></td>
<td>More higher in expansion will give lower of compressive strength.</td>
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<tr>
<td></td>
<td>0.40 % to give unrestrained expansion about ~1 % to concrete, depending on material/aggregate being used.</td>
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<td>Pre-trials are recommended and mandatory if combinations with the above products are required.</td>
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<td>Please consult to our Technical Service Department</td>
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</tbody>
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September 2018
APPLICATION INSTRUCTIONS

APPLICATION METHOD / TOOLS

Depending on the type of mixer and purpose of the injection, the mixing time and the water/cement ratio must be in accordance with the requirements.
For pre-stressed concrete work, a mixing time of 3 minutes with a w/c ratio of 0.40–0.45 has been found to give the best results.
For the use in grouting or mixture containing sand or coarse aggregate, to achieve necessary expansion the dosage of Sikagrun® Expansive Agent may be increased to 0.20–0.30 % by cement weight (depending on the expansion required and quantity of cement per m³ of mortar / concrete).

LIMITATIONS

• Sikagrun® Expansive Agent is essentially a product for use by specialized enterprises working in the field of applied prestressing and grouting techniques.
• It is known that the properties of the grout can be significantly influenced by the mixing procedure, cement properties, addition of water, dosage of admixture and temperatures.
• For important work it is necessary to determine the most suitable procedure by means of preliminary site tests.
• High alumina cement is not recommended for use with Sikagrun® Expansive Agent.
• In case of pozzolanic cement is used, the dosage of Sikagrun® Expansive Agent should be increased slightly in comparison to the use with Portland type I cement.
• To obtain optimum results (flowability, expansion, bleeding, etc.) the suitable w/c ratio and Sikagrun® Expansive Agent / cement ratio shall be determined through trial mixes.

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 declared data and recommended uses for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data and uses.

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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