

## Sigunit-49 AF

### Alkali Free Powder Shotcrete Accelerating Admixture

<b>Product Description</b>	<b>Sigunit®-49 AF</b> is a non-toxic, alkali free accelerator in powder form for shotcrete. The product is suitable for use in tropical and hot climatic conditions.
<b>Uses</b>	<b>Sigunit®-49 AF</b> is suitable for use as an accelerator in the dry spray process. The main uses of <b>Sigunit®-49 AF</b> are: <ul style="list-style-type: none"><li>■ Shotcrete with high initial strength</li><li>■ Support at the face in tunnelling</li><li>■ Rock and slope stabilization.</li></ul>
<b>Advantages</b>	The accelerator's effect depends on cement content, age and type, substrate and shotcrete temperature, layer thickness and the spray process. In dry spraying, the quantity of mixing water is an important criterion for the accelerating effects of <b>Sigunit®-49 AF</b> . The following advantages distinguish <b>Sigunit®-49 AF</b> as a shotcrete accelerator: <ul style="list-style-type: none"><li>■ Alkali free and non-toxic, which eliminates any adverse effects from additional alkali's in the spray dust.</li><li>■ Minimum strength loss in the accelerated shotcrete.</li><li>■ No additional surface and ground water pollution by leached out alkali's.</li><li>■ Lower rebound during application.</li><li>■ Improves bond of shotcrete to rock and concrete, making overhead spraying easier.</li><li>■ <b>Sigunit®-49 AF</b> is non-corrosive to steel reinforcement.</li></ul>

#### Product Data

<b>Form</b>	Powder
<b>Colour</b>	Beige
<b>Packaging</b>	25 kg Bag
<b>Storage Condition</b>	Store in original packing in a dry area between 5°C and 35°C. Protect from direct sunlight.
<b>Shelf life</b>	12 months minimum from production date if stored properly in original unopened packaging.

#### Technical Data

<b>Chemical base</b>	Mineral based, alkali-free powder.
<b>Density</b>	Approximately 1.10 kg/lit.



## Application Details

<b>Dosage</b>	<p>The most effective dosage of <b>Sigunit®-49 AF</b> must be determined by preliminary testing. Normally the dosage is between 4% and 7% by weight of binder. The mix design for dry spray process shotcrete is dependent on the quality requirements and method of application. The following Sika products are frequently also used for improving the basic concrete mix for shotcrete:</p> <ul style="list-style-type: none"> <li>■ Sikacrete® – L</li> <li>■ Sikacrete® – PP1 TU</li> <li>■ SikaFume® – HR / TU</li> </ul>
<b>Notes on application/ limitations</b>	<p>When applying shotcrete in thick layers, make sure that the temperature of the basic concrete is not below +15C. Lower temperatures require a higher dosage of the accelerator.</p> <p>The use of <b>Sigunit®-49 AF</b> requires skilled technical installation of the dosing and pumping system.</p> <p>Support from our Technical Service Department is recommended.</p>
<b>Curing</b>	<p>Fresh shotcrete must be cured properly, especially at high temperatures, in order to prevent plastic and drying shrinkage. Use Sika Antisol® products as a curing agent or apply wet hessian.</p>
<b>Cleaning</b>	<p>Clean all equipment and tools with water immediately after use.</p>
<b>Notes</b>	<p>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.</p>
<b>Local restrictions</b>	<p>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.</p>
<b>Safety</b>	<p>For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.</p>

## 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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