

PRODUCT DATA SHEET

Sika® Sigunit® L-530 AF

Liquid alkali-free set accelerator for shotcrete

DESCRIPTION

Sika® Sigunit® L-530 AF is a high-performance liquid, alkali-free, setting and hardening accelerator for shotcrete. Sika® Sigunit® L-530 AF is a solution based product and no circulation is required to keep Sika® Sigunit® L-530 AF homogenised.

USES

Sigunit®L-530 AF is suitable for both dry and wet spraying processes and it is used for:

- Support at the face, wall & backs whilst advancing tunnels and mines
- Rock- and slope stabilisation
- High quality lining shotcrete

FEATURES

Sika® Sigunit® L-530 AF liquid shotcrete set accelerator has the following characteristics and advantages:

- No circulation required
- No waste due to settlement
- High early strength development
- Alkali-free
- Minimal strength loss of the accelerated concrete
- No pollution of groundwater by leached out alkalis
- Distinct reduction of rebound and dust
- Improves bond of shotcrete to rock and concrete thus facilitating overhead spraying
- Chloride-free, does not negatively affect the reinforcement steel

PRODUCT INFORMATION

Composition	Aqueous solution of selected inorganic materials.
Packaging	1000 litre IBC
Appearance and colour	Cloudy white liquid
Shelf life	Eight (8) months from date of production if stored in original, unopened, undamaged and sealed containers, protected from direct sunlight and kept at temperatures between +5°C and +35°C.
Storage conditions	Store at temperature between 5°C and 35°C protected from direct sunlight. After prolonged storage the performance of Sika® Sigunit® L-530 AF should be tested.
Specific gravity	1.46 g/cm ³
pH-Value	3.0 approximately
Viscosity	≤ 120 mPa s at +20°C
Total chloride ion content	≤ 0.1%
Equivalent sodium oxide	≤ 1.0%

Recommended dosage	For layer thicknesses of up to 100 mm in one pass, dosage is between 4% and 7% of weight of binder. The correct dosage must be determined by preliminary testing.
Compatibility	The following Sika® products are generally used for the basic shotcrete mix: Sika® ViscoCrete® product range SikaTard®-960 HC SikaMix® Sika® Stabilizer 4R AU and Sika® Stabilizer-821 CS Sigunit®L-530 AF is not compatible with alkaline shotcrete accelerators.
Restrictions	If thicker layers of shotcrete are to be applied, ensure that the temperature of the basic concrete is not lower than +15°C. Lower temperatures require higher dosage of accelerator.

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.

FURTHER DOCUMENTATION

When using sulphate resistant cements strength development can be slower.

IMPORTANT CONSIDERATIONS

The substrate must be clean, free of loose stones and free of water under hydrostatic pressure. The accelerator's effect depends on the cement content, the age and type of cement, on the substrate and the shotcrete temperature as well as on the layer thickness and spraying process, quality of equipment and application technique. The w/c ratio of the basic concrete mix in the wet spraying process, and the quantity of gauging water in the dry spraying process are also parameters influencing the acceleration effect of Sigunit®L-530 AF. Before using Sigunit®L-530 AF the accelerator hoses must be cleaned thoroughly. The use of Sigunit®L-530 AF requires technically correct dosing and conveying / spraying technology. Metal parts of the pump that come into direct contact with Sigunit®L-530 AF must be made of stainless steel

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.

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LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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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