

Product Data Sheet

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Identification no.

Sigunit L53 AF

Sigunit® L53 AF

Liquid Alkali Free Shotcrete Accelerator

Description	Sigunit L53 AF is a liquid high performance, alkali-free liquid accelerator for shotcrete applications.
Applications	Sigunit L53 AF is a shotcrete set accelerating admixture. Sigunit L53 AF is suitable for wet and dry shotcrete applications. Sigunit L53 AF can be successfully used for rocks securing applications, tunnel and mine construction, rock and slope stabilization or whenever high quality shotcrete for general construction is required.
Advantages	<ul style="list-style-type: none">■ Non-hazardous and alkali-free (non caustic), reduces potential danger of accident or injury caused by caustic accelerators.■ No contamination of water due to alkali content.■ Rebound reduction.■ Improves bond of shotcrete to rock and concrete subgrade making overhead spraying easier.■ Does not contain chlorides, no negative impact to steel fibers and reinforcement.■ Very efficient on wet subgrades.■ Excellent performance at low temperatures.
How to Use	
Dosage	The most effective dosage must be determined by trial. Dosage rates will vary according to w/c ratio, materials used, ambient conditions, shotcrete methods used and the requirements of a specific project. For general applications Sika recommends a dosage between 3% - 6% by weight (32-64 fl.oz./100 lbs.) of the total cementitious content. The performance of the Sigunit L53 AF will vary according to w/c ratio of the mix. Dosage rates outside the recommended range may be used where specialized materials such as microsilica are specified, extreme ambient conditions are encountered or unusual project conditions require special consideration. In this case please contact your local regional office or technical service department at 1-800-933-7452. The effect of Sigunit L53 AF depends on cement type, cement age, cement content and type of subgrade.
Mixing	Sigunit L53 AF is dosed and added on-site by a liquid dispensing system. Optimum dispersion in the shotcrete is governed by nozzle configuration and shotcreting techniques. Important information: The concrete temperature should not be lower than 50°F (10°C) when shotcreting in thick layers - 4 inches and above (100mm and above). Use of Sigunit L53 AF requires the technically correct installation of dosing and conveying equipment. Metal components that come into direct contact with the product should be fabricated of stainless steel. Do not use brass parts.

Construction



Combination with other Sika admixtures:

Following Sika admixtures can be used in conjunction with Sigunit L53 AF:

SikaTard 930

Sika ViscoCrete 305

SikaPump

Sikament N

Sikament 300

Sika ViscoCrete 6100, 4100, 2100

Trial with local materials is always recommended to verify performance.

Packaging	Sigunit L53 AF is available in 55 gallon drum (208 liter), 275 gallon totes (1040 liters) and bulk delivery.
Storage and Shelf Life	<p>Always store Sigunit L53 AF in stainless steel or plastic containers as the pH of the admixture can cause corrosion when the product is stored in normal containers, which might affect the performance of the product. Protect from direct sunlight, heat and frost. If these conditions exists the Sigunit L53 AF may precipitate. If these conditions occurs, the performance of Sigunit L53 AF may be adversely affected and the regional Sika representative or Technical service department at 1-800-933-7452 should be contacted.</p> <p>Shelf life when stored in unopened original containers in dry warehouse conditions between 40°F and 80°F (5°C - 27°C) is 6 months. Depending on storage conditions, the shelf life may be greater than stated.</p>
Typical Data	
Appearance	Beige colored liquid.
Specific Gravity	Approx. 1.4
CAUTION: IRRITANT	Contains Aqueous Solution of Aluminum Salts (CAS: Mixture). Causes skin irritation. May cause eye and respiratory irritation. Harmful if swallowed.
Handling and Storage	Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Wash thoroughly with soap and water after use. Remove contaminated clothing and launder before reuse.
First Aid	Eyes: Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin: Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation: Remove to fresh air. Ingestion: Do not induce vomiting. Dilute with water. Contact physician. In all cases contact a physician immediately if symptoms persist.
Clean Up	Use personal protective equipment (chemical resistant gloves/ goggles/ clothing). Without direct contact, remove spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.

