



Sika[®] Sigunit[®] L53AF

Shotcrete Accelerator

Technical Data Sheet

DESCRIPTION

Sika Sigunit L53AF is a new generation liquid alkali free accelerator for the production of high quality wet shotcrete. It increases the early strengths of concrete without negatively influencing the final strength.

USES

- * **Sika Sigunit L53AF** is used to achieve high early strengths at 6–24 hours. It is used in conjunction with a system of admixtures, which are incorporated into the base mix shotcrete to produce shotcrete for general construction work.
- * **Sika Sigunit L53AF** can also be used for rock stabilisation and protection.
- * **Sika Sigunit L53AF** does not contain any chlorides and can, therefore, be used without any reservations for reinforced shotcrete.

ADVANTAGES

Sika Sigunit L53AF substantially increased early strengths and provides the following benefits:

- * Good adhesion to the substrate
- * Alkali free
- * Reduced rebound
- * Improved bond to substrate
- * Controlled set
- * No loss of strength compared to non accelerated shotcrete at 28 days
- * Improved surface finishes
- * Non corrosive and classified as a non toxic product

Technical Data (typical)

Form:	Liquid
Colour:	Off White
Specific Gravity:	1.43
Dosage % by Wt of Cement:	3–6%
Chloride Content % w/w:	Nil (less than 0.01%)
Freezing Point °C:	-1°C

All above values are approximate.



DISPENSING

Sika Sigunit L53AF should be added at the nozzle by a calibrated pump and the optimum dosage established by trials, as a guide the shotcrete should gel rather than flash set and for maximum performance that is important.

The base mix concrete should contain a Sikament Super Plasticiser and a retarding stabiliser can be added at the batching plant if necessary for extended life.

Overdosing of the product beyond its dosage range and optimum rate can lead to a loss of strength at 28 days.

EFFECTS OF OVER-DOSING

May lead to uncompacted shotcrete and flash set

COMPATIBILITY

Sika Admixtures: Contact Technical Department
Cements: Contact Technical Department

IMPORTANT NOTES

***Sika Limited are happy to advise on mix design criteria in order to achieve strength requirements, in general for shotcrete in excess of C30 the addition microsilica is normally required. The w/c ratio should not exceed 0.50.**

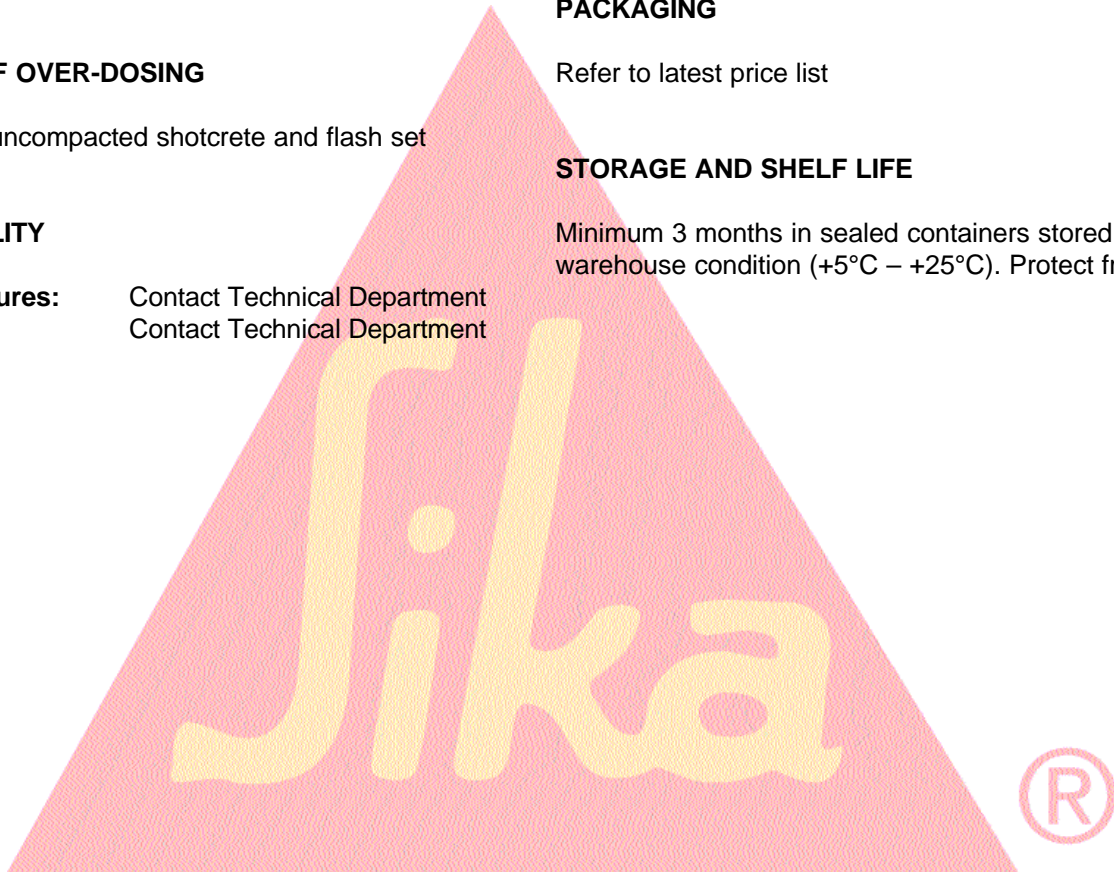
Sika Limited are happy to provide technical support in the establishing of mix design and base mix to shotcrete correlation.

PACKAGING

Refer to latest price list

STORAGE AND SHELF LIFE

Minimum 3 months in sealed containers stored in dry warehouse condition (+5°C – +25°C). Protect from frost.



Handling Precautions

Sika products are generally harmless provided that certain precautions normally taken when handling chemicals are observed. The materials must not, for instance, be allowed to come in contact with foodstuffs or food utensils and measures should also be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The use of protective clothing, goggles, barrier creams and rubber gloves is required. The skin should be thoroughly cleaned at the end of each working period either by washing with soap and warm water or by using a resin-removing cream - the use of powerful solvents is to be avoided. Disposable paper towels - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. In case of accidental eye or mouth contact, flush with water - consult a doctor immediately. Health and Safety information on Sika Products is available and we strongly advise that this is read prior to their use. Sika products are for professional use and should be stored in sealed containers away from the reach of children.

Important Note

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 Technical Data Sheet for the product concerned, copies of which will be supplied on request.

Please consult our Technical Sales Department for further information

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