



Sigunit[®] Powder

Sika Set Accelerator for Gunitite & Shotcrete

Technical Data Sheet

DESCRIPTION

Sigunit Powder is a quick setting and waterproofing powder for use with sprayed concrete or Gunitite.

Sigunit Powder allows spraying to take place even on wet surfaces subjected to water infiltration. The admixture improves overhead spraying and reduces rebound.

Sigunit Powder does not contain any chlorides or nitrates and will not corrode steel.

Sigunit Powder has been used since 1933 successfully around the world.

USES

- * Accelerator for Sprayed concrete and Gunitite with a proven track record.

ADVANTAGES

- * By incorporating set accelerator to the Gunitite or Shotcrete, faster execution of the application can be achieved, allowing a quicker access to the work area without the risk of collapse.
- * Reduction in rebound
- * Less dust in atmosphere
- * Ability to stop leaking water
- * Reduction in cement content
- * Increase in Early Strength

Technical Data (typical)

Form:	Powder
Colour:	White
Bulk Density:	0.70 Kg/litre
Chloride Content % w/w:	Nil
Effect on Setting:	Accelerating

All above values are approximate.



METHOD OF USE

The required amount of **Sigunit Powder** can be mixed with a dry sand cement or gravel sand cement mixture. Large quantities of dry mix can be prepared and stored if protected against moisture.

DISPENSING

Sigunit Powder can be dispensed with a powder doser. Doseage rates are usually between 3–7%.

EFFECTS OF OVER-DOSING

Faster set and reduced ultimate strength

COMPATIBILITY

Sika Admixtures: All
Cements: All

IMPORTANT NOTES

As the set is rapid, test samples must be taken from sprayed concrete; compaction by hand will destroy the initial set.

PACKAGING

Refer to latest price list

STORAGE AND SHELF LIFE

Minimum 1 year 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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Sigunit® 49AF

Alkaline Free Powder Accelerator

Technical Data Sheet

DESCRIPTION

Sigunit 49AF is an alkaline free powder accelerator for use in sprayed concrete operations. It can be used in wet or dry spray applications.

Sigunit 49AF is manufactured in the UK by Sika under strict quality control.

Sigunit 49AF is used in NATM shotcrete, tunnel construction, rock stabilisation, large volume repairs and general shotcrete construction.

Sigunit 49AF is compatible with many other Sika products.

ADVANTAGES

Sigunit 49AF provides the following benefits:–

- * Alkali and toxic free
- * No corrosive effect from airborne dust particles
- * No loss in adhesion of the accelerated concrete
- * No reduction in early or ultimate strength development
- * Reduction in rebound
- * Minimal handling precautions with no caustic effects
- * Can be used with low fines content mixes
- * Can produce high strength shotcrete
- * Improves durability

Technical Data (typical)

Form:	Alkaline free powder
Colour:	Light brown
Density:	0.90 approx

All above values are approximate.



DOSAGE

For more information on Sika visit www.barbourproductsearch.info

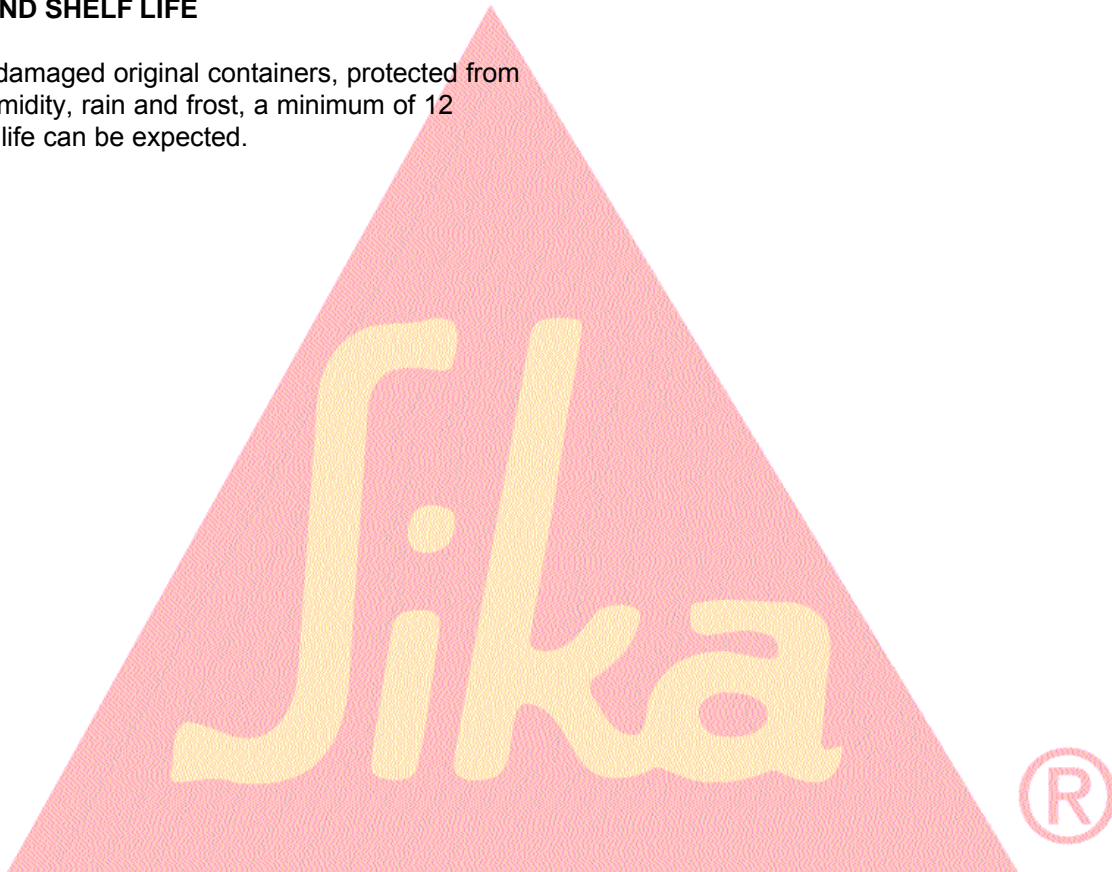
The dosage rate of **Sigunit 49AF** will vary depending on the required proportions. Dosage ranges from 3% – 7% by weight of cement. Dosage should be established by site trials.

PACKAGING

Sigunit 49AF is supplied in 25 Kg bags.

STORAGE AND SHELF LIFE

In closed, undamaged original containers, protected from frost, high humidity, rain and frost, a minimum of 12 months shelf life can be expected.



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.

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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 trails, 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.**

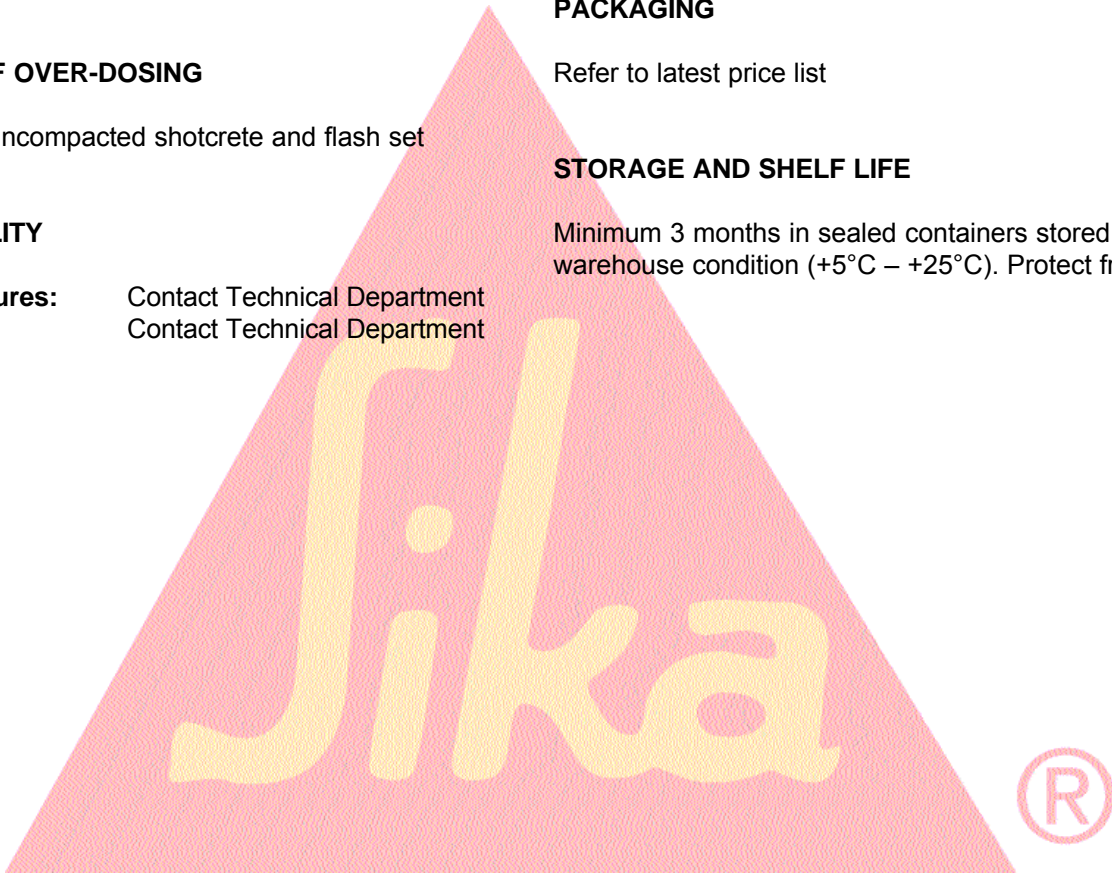
Sika Limited are happy to provide technical support in the establishing of mix design and base mix to shotcrete correlation.

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.

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Sika® Sigunit® L54AF (UK)

Shotcrete Accelerator

Technical Data Sheet

DESCRIPTION

Sika Sigunit L54AF (UK) 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 L54AF (UK)** 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 L54AF (UK)** can also be used for rock stabilisation and protection.
- * **Sika Sigunit L54AF (UK)** does not contain any chlorides and can, therefore, be used without any reservations for reinforced shotcrete.

ADVANTAGES

Sika Sigunit L54AF (UK) 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 L54AF (UK) should be added at the nozzle by a calibrated pump and the optimum dosage established by trails, 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 of microsilica is normally required. The w/c ratio should not exceed 0.50.**

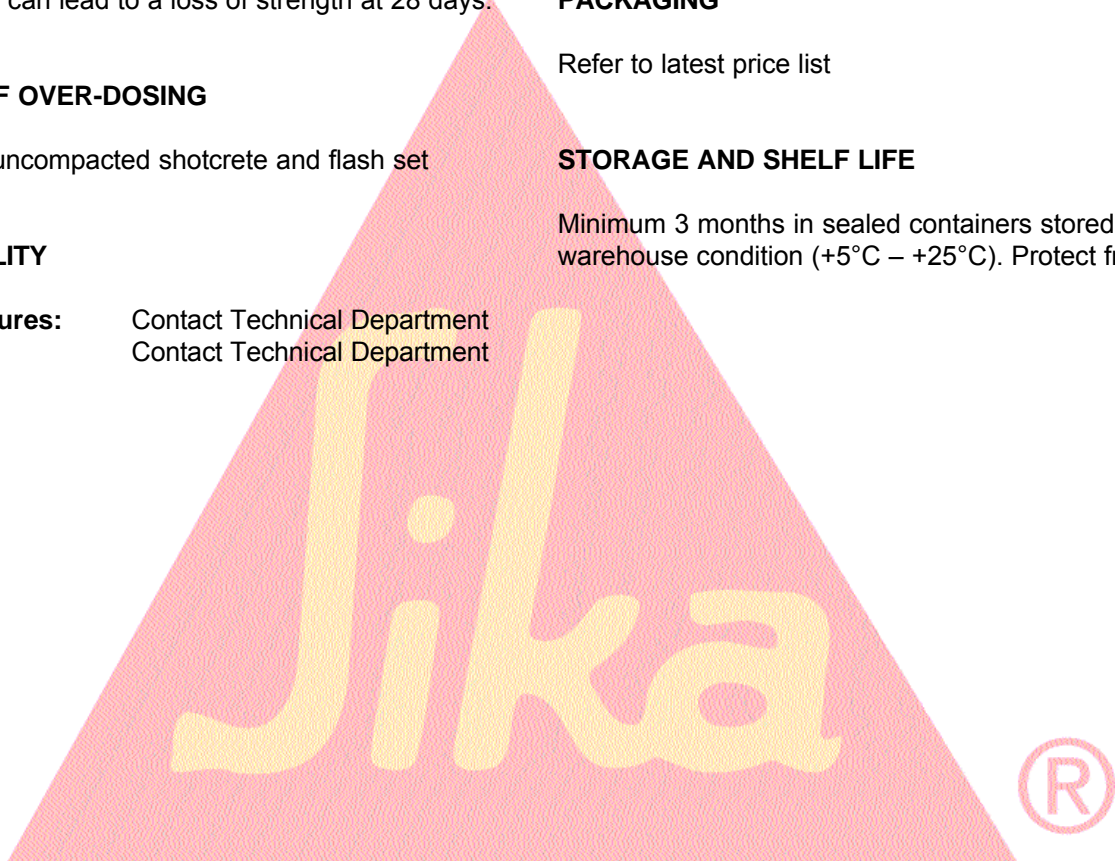
Sika Limited are happy to provide technical support in the establishing of mix design and base mix to shotcrete correlation.

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

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