



Sika[®] 4a

Waterstop

Technical Data Sheet

DESCRIPTION

Sika 4a is a ready to use quick setting leak stopping liquid which is mixed with water and ordinary portland cement to produce a paste for leak stopping against high water pressure infiltration.

USES

- * To seal against high and moderate water pressure infiltrations in concrete, rock or masonry.
- * Allows **Sika 1** renders, gunite or shotcrete to be applied on structures exposed to running surface water.

ADVANTAGES

- * Ready to use.
- * Rapid setting time.
- * Just add water and ordinary portland cement.
- * Well proven.
- * Does not contain chlorides.
- * Suitable for potable water contact.

Technical Data (typical)

Form: Liquid

Colour: Clear

Setting times:

Dilution Sika 4a : water	Setting time	Sika 4a usage litres/kg cement
1 : 1	15 - 45 secs	0.35
1 : 4		0.18

Approved for potable water contact.
Details available on request.



All above values are approximate.

SURFACE PREPARATION

At the location of infiltration, remove all loosely adhering particles, algal growth contaminants etc by localised scabbling, needle gunning to roughen and clean substrate.

Control leakage by diverting water to selected discharge points formed of short lengths of plastic or rubber tube set into the substrate. Pre-drill holes to accept tubes.

DOSAGE

1 : 3 by vol (diluted **Sika 4a** : Ordinary Portland Cement).

MIXING

Place **Sika 4a** in a mixing container then add the O.P.C. Stir the mix together quickly to form a paste.

APPLICATION

- * After pre-drilling holes for tubes, bond tubes into holes using **Sika 4a** cement paste.
- * For sealing large areas of infiltration, first seal off using **Sika 4a** cement paste while allowing water to infiltrate through substrate (see separate data sheet).
- * Gradually seal off water by working towards the discharge points.
- * When the water flow has been controlled through the discharge points apply the **Sika 1** structural waterproofing render or gunite layers upto the discharge tubes.
Note: Do not apply final layer of render or gunite until discharge tubes have been removed and water infiltration has stopped.
- * Allow render or gunite coats to set for a minimum of 24 hours.
- * Remove discharge tubes from holes.
- * Mould the **Sika 4a** cement paste by gloved hand into a plug and place immediately into the discharge hole, pressing firmly until the mix has set (15 - 20 secs).
- * Apply final coats of render or gunite over the plugs at a minimum thickness of 10.0 mm.

IMPORTANT CONSIDERATIONS

- * Where high water pressures are experienced, the prepared area around the discharge tubes may need to be increased to provide a larger surface area for bonding the **Sika 4a** cement paste.
- * Setting times will be affected by ambient temperature, water and **Sika 4a** temperature, supplier and age of ordinary portland cement. Trials are recommended varying the **Sika 4a** dosage, temperature and type of ordinary portland cement until the required performance is achieved.
- * Use only fresh portland cement.
- * Wear suitable protective clothing, gloves and eye protection.
- * **Sika 4a** plugs must always be overcoated with a final waterproof layer.
- * Best results are usually achieved by applying with gloved hand.

CLEANING

Application and mixing tools should be cleaned with water immediately after use. Hardened material must be removed mechanically.

PACKAGING

Refer to latest price list.

MATERIAL CONSUMPTION

1 kg of portland cement : 0.18 - 0.35 litres of **Sika 4a**.
Excluding allowances for loss, wastage and surface profile.

STORAGE AND SHELF LIFE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+5°C - +30°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

SIKA IRELAND LIMITED
Ballymun House, Ballymun Ind Estate, Dublin 11, Ireland
Tel: 01 8620709 Fax: 01 8620707 www.sika.ie

