

SikaFix® Kit

Injection kit containing expansive polyurethane grout to repair and waterproof cracked foundations

Description The SikaFix® Kit is an injection package for the repair of leaking cracks in foundations and waterproofing of piping penetrations, static joints and other types of voids. The kit includes hydraulic mortar for crack plugging, injections T's and a two-part expansive hydrophobic grout polyurethane grout that reacts to the presence of moisture by forming a tough and flexible foam firmly adhering to the crack walls to create a permanent seal.

Where to Use The SikaFix® Kit permanently stops the flow of unwanted water penetrating into or through:

- Foundation and basement walls.
- Cracked or honey combed concrete.
- Concrete and masonry surfaces.
- Pipe and utilities penetrations.
- Wastewater or septic tanks.

Advantages

- Economical and easy to apply.
- Complete kit supplied, no other materials needed.
- Does not require specialized equipment.
- Hydrophobic - only a small amount of water is needed for reaction.
- Lasting adhesion to wet and dry surfaces.
- Zero shrinkage maintains water tightness.
- Permanently flexible and tough seal.
- Environmentally friendly; cured product is inert.

Technical Data

Packaging	Kit includes: - 250 mL (8.45 US fl. oz) cartridge of SikaFix® PU polyurethane grout - 1 kg (2.2 lb) bag of Sikaset® Plug quick-set mortar - 20 Sika® Injection T's ports with plugs - Product data sheet (instructions)
Colour	Mortar: Concrete Grey Grout: Light Amber
Yield	Typical crack: 2.4 m (8 ft) long x 200 mm (8 in) deep x 3 mm (1/8 in) wide.
Shelf Life	12 months in original, unopened packaging. Store between 10 - 32°C (50 - 90°F) in a dry place. Protect from freezing. If frozen discard.
Properties at 23°C (73°F) and 50% R.H. (SikaFix® PU)	
Open Time	Approx. 5 hours, providing no moisture enters the cartridge.
Shrinkage ASTM D1623	0%
Elongation	25%
Water Absorption	0.19 kg/m ²

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

How to Use

Surface Preparation

For cracks, joints or voids less than 6 mm (1/4 in) wide, create a 'V' notch at least 6 mm (1/4 in) wide and 13 mm (1/2 in) deep using an angle grinder, disc cutter or sharp, hand chipping tool.

Clean all cracks well with a wire brush to remove all dust, laitance (thin cement film), curing compounds, loose, friable and foreign particles, grease and any material which would obstruct bond of mortar and penetration of grout. Proceed to a final dusting of the crack before starting the injection process.

Substrates should be clean and sound and moisture must be present to bond the mortar and activate the grout.

Application

Installing Sika® Injection T's - Starting from bottom of the crack and using a glue gun or silicone, install Sika® Injection T's ports at 10 - 15 cm (4 - 6 in) intervals. For wider cracks, the interval between each injection port can be increased to 15 - 20 cm (6 - 8 in) .

Ensure each port is centered across crack and port is ready for injection. In order to prevent the injection ports to be accidentally clogged, they should be temporarily plugged using the plastic plugs that are supplied with the kit.



Plugging the Crack - Wet crack thoroughly with clean water to ensure adhesion of Sikaset® Plug. Surfaces must be saturated but clear of standing water when plugging mortar is applied.

Mix Sikaset® Plug powder with clean, cold water in ratio of 1 part water to 3 parts powder by volume and to the consistency of stiff putty.

Apply immediately a layer of mortar layer of 6 mm (1/4 in) around Sika® Injection T's ports and 3 mm (1/8 in) along the complete face of the crack.

Note: Mortar dries rapidly (1 1/2 - 2 minutes) so it is recommended that it is mixed and applied in manageable quantities (proceed by mixing small batches).

Allow the quick-set, plugging mortar to set and harden 90 to 120 minutes before injecting.

Preparing the Grout - Unscrew threaded cap from SikaFix® PU cartridge and then remove plastic plug. Both cap and plug must be kept if not using all grout in cartridge at one time.

Attach the static mixing nozzle supplied and replace the threaded cap over the nozzle. Screw cap tightly to prevent leakage.

Load the cartridge into a suitable caulking gun.

When injection work is completed, remove threaded cap and the static mixing nozzle. Replace plastic plug and cap to allow future use.

Injecting the Crack -

IMPORTANT: Thoroughly pre-wet crack with clean water to ensure SikaFix® PU will expand and form a sealing foam, as required. SikaFix® PU MUST BE IN CONTACT WITH WATER IN ORDER TO REACT AND EXPAND.

Remove any temporarily placed plugs from ports and insert tip of cartridge nozzle into lowest Sika® Injection T's (No. 1) to start injecting.

Pull the trigger of the caulking gun 3 to 4 times and then stop, in order to allow SikaFix® PU grout to penetrate and to expand in the crack. Should there be no sign of water displacement after 4 to 5 minutes, repeat the injection (3 to 4 pressures on the trigger) through the same injection port.

Once all water is displaced, SikaFix® PU will fill up part of the crack and the partially expanded resin will come out from the next Sika® Injection T's up (No. 2).

When resin starts to flow out from Sika® Injection T's No. 2 placed above, insert a plastic plug into the first Sika® Injection T's (No.1).

Inject grout into the second Sika® Injection T's (No. 2) by pulling the trigger 3 to 4 times until partially expanded resin starts to come out from the following Sika® Injection T's (No.3) located above.

Place plastic plug into Sika® Injection T's No.2 and continue in the same manner until all Sika® Injection T's ports have been injected and securely plugged to prevent leakage of unreacted grout resulting in unfilled cracks.

After three (3) to five (5) hours, the excess of SikaFix® PU that came out to the surface of cracks (outside foundation wall) will be easily removed using a sharp utility knife.

Note: SikaFix® PU is a two-component material conditioned in a single, compartmented cartridge. The cartridge design and the material reaction occurring upon mixing may give the impression to the applicator that only half of the grout has been dispensed, where in fact, all the material has been extruded and applied..

Clean Up Use either a solvent-based cleaner or Sika® Hand Cleaner towels to remove unreacted grout. Cured resin can only be removed mechanically.

Limitations

- Minimum substrate temperature 5°C (41°F).
- Minimum material temperature 15°C (59°F).
- Cured foam should be protected from sunlight.
- Confined, reacting SikaFix® PU can produce up to 3100 KPa (450 psi) pressure.
- Care must be taken when handling cement-based materials and resins.
- For any application in contact with potable water, consult Sika Canada Technical Services.

Health and Safety Information For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the product label and the **most recent Material Safety Data Sheet** containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelf life. 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 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 Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



Sika Canada Inc.
Head Office
601 Delmar Avenue
Pointe-Claire, Quebec
H9R 4A9

Other locations
Toronto
Edmonton
Vancouver

1-800-933-SIKA
www.sika.ca

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