

Sika[®] 4A

Quicksetting Waterproofing Admixture

Construction

Description	Sika [®] 4A is a quicksetting waterproofing liquid admixture for Portland cement based mortar.
Uses	<p>Sika[®] 4A is used for surface waterproofing against water infiltrations in porous rock or concrete as well as for cracks and joints through which water infiltrates.</p> <p>For use in building construction and civil engineering, in particular where dry conditions are required for the following permanent waterproofing operations. Sika[®] 4A can also be used in quick setting mortar for assembly work, eg. fixing climbing irons, rag bolts, pipe supports, bolts, anchorages, repair work etc.</p>
Advantages	<ul style="list-style-type: none"> • Accelerates setting of Portland cement. • Chloride free. • Alkaline. • Does not corrode steel. • Non-flammable.
Storage and Shelf Life	Stored in the original sealed containers, within the temperature range of +5°C and +35°C, this product will keep for a minimum of 3 years.
Instructions for Use	
Mixing	<p>Sika[®] 4A can be used neat or diluted with water, in a Portland cement paste or sand/cement mortar, depending on the particular application. The recommended dilution rate is from 1:0 to 1:4 (Sika[®] 4A : water). In a cement paste, setting begins after 1 to 3 minutes.</p> <p>Trial mixes are recommended to determine the most suitable mix proportions, time of set and workability.</p> <p>Mix small quantities at a time and use immediately after mixing.</p> <p>When mixing cement paste, add the cement to the gauging water then quickly and thoroughly mix until a smooth paste is formed.</p>
Application of Mortar	<p>Methods of application will vary depending on the type of mortar mix and it's purpose. For example:</p> <ol style="list-style-type: none"> 1. Preparation <p>Substrates must be clean and sound. Remove all loose matter and traces of oil, grease, laitance, paint, form release agents, curing membranes etc.</p> <p>Mineral substrates must be saturated with water but surface dry (SSD condition) prior to the application of a Sika[®] 4A modified mortar, render, cement paste etc.</p> 2. Sealing moderate water infiltration and seepage. <p>Prepare a Portland cement paste with Sika[®] 4A diluted in water at 1:0.5 to 1:4. Apply firmly with gloved hand or trowel over the whole surface subject to seepage. Allow the Sika[®] 4A modified paste to harden prior to overcoating with a permanent waterproofing render such as SikaTop[®] -107 or SikaCrete-Gunite.</p> 3. Sealing severe water infiltrations where high water pressure is involved. <p>Apply Sika[®] 4A cement paste as above, in such a way that the water is concentrated at the points of strongest infiltration; refer figures 1-4.</p> <p>Insert short lengths of plastic tube into these points and secure them with Sika[®] 4A cement paste, then complete the preliminary waterproofing with Sika-4A cement paste. The discharge pipes prevent the surrounding mortar from</p>

Application (continued)

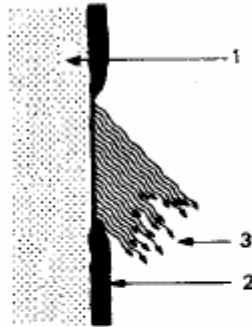
being subject to water pressure during setting and hardening.

The application of the permanent waterproofing, such as SikaTop® -107 or SikaCrete Gunite, can commence as soon as the Sika-4A mortar has hardened sufficiently (usually 6-12 hours). The short lengths of plastic tube remain in place until the permanent waterproofing has hardened sufficiently (usually 24-48 hours after application).

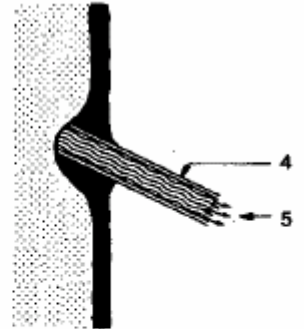
When the plastic tubes are removed plug the holes with a cement and Sika® 4A paste. Apply a final coat of the permanent waterproofing render (eg. SikaTop-107 or SikaCrete Gunite) ensuring that the plugged areas have good coverage.

Cleaning

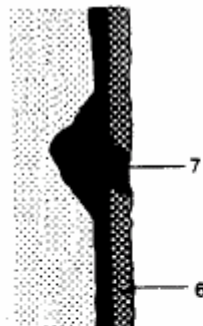
Clean all tools and equipment immediately after use with water. Hardened mortar can only be removed by mechanical means.



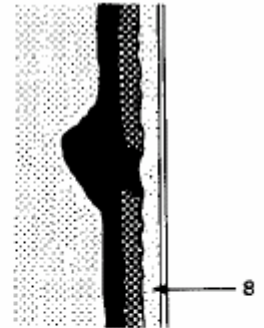
1. Concrete roughened and cleaned, rock wire-brushed and washed down.
2. Preliminary waterproofing with Portland cement and Sika-4A.
3. Infiltration concentrated at a few points.



4. Plastic tube set in cement and Sika-4A.
5. Water discharging through the plastic tube.



6. First two coats of SikaTop-107 or 1-2 layers of gunite.
7. Plug of cement and Sika-4A after removal of the plastic tube.



8. Final coats of Sika-107 or gunite.

Figures 1-4 Sealing severe water infiltrations where high water pressure is involved.

Technical Data (Typical)

Form	Clear liquid
Density	1.25 kg / litre (approx.)
pH	11.7 to 13.7 (ALWAYS avoid direct skin contact)
Packaging	20 litre pail 5 litre jerry can

Important Notes

- Use with fresh Portland cement only.
- Mixing water must be potable and at least 5°C in temperature.
- Sika® 4A modified mortars, renders, cement pastes etc. that are mixed or applied after initial set has been reached are ineffective.
- Sika® 4A modified mortars, renders, cement pastes etc. used in waterproofing application are considered preliminary measures only, and must be overcoated by a permanent waterproofing render such as SikaTop-107 Seal or SikaCrete-Gunite.

Handling Precautions

- CAUTION: Sika® 4A is caustic.
- Avoid contact with the skin, eyes and avoid breathing it's vapour.
- Wear protective gloves and eye glasses when mixing or using.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed, do NOT induce vomiting. Give a glass of water.
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly.
- If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

Important Notification

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 of our terms and conditions of sale. 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 DEPARTMENT FOR FURTHER INFORMATION.

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