



# Sikaflex<sup>®</sup>-1A+

## One Part High Performance Polyurethane Joint Sealant

### Technical Data Sheet

#### DESCRIPTION

**Sikaflex-1A+** is a single component gun grade polyurethane based sealant for both building and civil engineering structures.

It cures under the influence of atmospheric moisture to form a tough elastic seal with excellent adhesive properties and resistance to ageing and weathering.

#### USES

**Sikaflex-1A+** is particularly suitable for sealing movement joints in water retaining structures.

- \* Potable Water Structures (DWI Clause 25 (1) b)
- \* Dirty water structures.
- \* Bridge parapet joints.
- \* Construction/movement joints in civil structures.
- \* Retaining walls.

#### ADVANTAGES

- \* One part - no mixing on site.
- \* Outstanding adhesion.
- \* Proven durability, 30 year track record.
- \* Self bonding, easily repaired.
- \* Easy to install.
- \* Suitable for contact with potable water.

Technical Data (typical)	
<b>Colour:</b>	Grey
<b>Density:</b>	1.2 kg/litre
<b>Movement Accommodation Factor (MAF):</b>	25%
<b>BS ISO 11600 classification:</b>	F - 25HM - brick F - 25LM - mortar
<b>Service temperature range:</b>	-40°C to +70°C Upto +40°C in water
<b>Cure rate:</b>	2 mm/day (20°C / 65% RH)
<b>Application temperature:</b>	+5°C min, +40°C max (Substrate and ambient)
<b>Shore A hardness:</b>	20 after 28 days
<b>Tack free time:</b>	1 - 2 hours (+23°C / 50% RH)
<b>Elastic recovery:</b>	> 70%
<b>Tensile strength at 20% elongation:</b>	0.1 N/mm <sup>2</sup> 
<b>Maximum joint width:</b>	35 mm
<b>Minimum joint depth for expansion joints:</b>	10 mm
<b>Modulus:</b>	< 0.10 N/mm <sup>2</sup> @ 20% elongation
Approved for potable water contact. Details available on request.	
All above values are approximate.	

## PREPARATION

All surfaces must be sound, clean, dry and free from any surface contaminants.

All loose particles, paint, laitance, rust and other poorly adhering materials should be removed with a rotary mechanical wire brush, grinding or grit blasting followed by blowing out with oil free compressed air. Use epoxy mortars for making good spalled or damaged joints.

Iron and steel should be protected by an anti-corrosion primer such as **Icosit® EG1** prior to joint sealing.

## PRIMING

For the selection of the suitable primer, please consult the Primer Chart. When using **Sika Primer 3** on moist substrate, maximum substrate moisture content must not exceed 8%.

## APPLICATION

- \* Insert **Sika® Joint Backing Rod** to required depth.
- \* Apply appropriate primer to joint sides and observe waiting time.
- \* Firmly extrude **Sikaflex-1A+** into the joint making sure that it is in full contact with the sides of the joint.
- \* Fill the joint, avoiding air entrapment.
- \* **Sikaflex-1A+** should be tooled to a smooth finish.

Also refer to BASA/CIRIA application guidelines.

Masking tape should be used where sharp exact joint lines or exceptionally neat lines are required. Remove the tape whilst the sealant is still soft.

## IMPORTANT CONSIDERATIONS

- \* **Sikaflex-1A+** should not be used for structural glazing.
- \* Protect the finished joint from water for at least 24 hours.
- \* **Sikaflex-1A+** should be used with care in resealing joints that were previously filled with silicone sealants. All silicone residue must be removed.
- \* Bonded elements may require additional holding or support during curing period.
- \* **Sikaflex-1A+** may be painted. However some coatings may crack if movement occurs, preliminary tests recommended.

## CLEANING

Clean tools immediately with **Sika Thinner C**.

## PACKAGING

Refer to latest price list.

## JOINT DESIGN

Refer to BASA/CIRIA Guidelines. (CIRIA Publication 80)

## CONSUMPTION

Theoretical consumption of **Sikaflex-1A+** per 600cc sausage (without wastage):

$$\begin{aligned} \text{Length of joint per 600cc (m)} &= \frac{600}{\text{Joint width (mm)} \times \text{joint depth (mm)}} \\ \text{Litres per metre run of joint} &= \frac{\text{Joint width (mm)} \times \text{joint depth (mm)}}{1000} \end{aligned}$$

## STORAGE AND SHELF LIFE

9 months from date of production if stored in cool, dry conditions (+10°C to +25°C).

### 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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