

## PRODUCT DATA SHEET

# Sika® Injection-304 PS

Polyacrylic elastic injection system for permanent watertight sealing

### PRODUCT DESCRIPTION

Sika® Injection-304 PS is a low viscosity, elastic polyacrylic polymeric strengthened injection resin. The material reacts to form a waterproof, elastic and solid gel with good adhesion to both dry and wet substrates.

### USES

The Product is used for:

- Sealing all types of leaking building components in damp or water-saturated ground
- Sealing cracks, joints, or cavities in concrete, masonry, or the ground
- Repairing waterproofing membranes in saturated ground such as in tunnels and basements
- Backfilling of joints
- Curtain injection
- Subsequent waterproofing by means of damp proof courses or vertical sealing in masonry

Please note:

- The Product may only be used by experienced professionals.

### CHARACTERISTICS / ADVANTAGES

- Polymeric Strengthened (PS)
- Permanently elastic
- Injected with a two component pump
- Capable of reversibly absorbing (swelling) and releasing (shrinking) moisture
- Adjustable gelling times at various temperature ranges
- Very low viscosity compared to water
- Once cured the Product is insoluble in water and hydrocarbons and resistant to alkalis
- Resistant to alternating freeze and thaw exposure

### APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 1504-5:2004 Products and systems for the protection and repair of concrete structures — Concrete injection
- Drinking Water Approval KTW- D1, LADR, No. 102509/00/01

### PRODUCT INFORMATION

<b>Chemical Base</b>	3-part polyacrylic resin (Sika® Injection-304/304 PS) plus polymeric strengthening compound (Part C)	
<b>Packaging</b>	Ready to use kit of Sika® Injection-304 PS:	
	Part A1 (Resin)	21.50 kg
	Part A2 (Accelerator)	1.05 kg
	Part B (Hardener)	0.40 kg
	Part C (PS compound)	20.00 kg
	Refer to the current price list for available packaging variations.	
<b>Shelf Life</b>	Part A1 (Resin)	12 months from date of production
	Part A2 (Accelerator)	12 months from date of production
	Part B (Hardener)	12 months from date of production
	Part C (PS compound)	9 months from date of production

## Storage Conditions

Store the Product in its original, unopened and sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Protect all components from direct sunlight. Protect Part C from frost. Refer to the current Safety Data Sheet for information on safe handling and storage.

<b>Colour</b>	Part A1 (Resin)	amber liquid
	Part A2 (Accelerator)	colourless liquid
	Part B (Hardener)	white powder
	Part C (PS compound)	white liquid
<b>Density</b>	~1 kg/l (complete mixture, +20 °C)	
<b>Viscosity</b>	~35 mPa·s (complete mixture, +20 °C)	(EN ISO 3219)

## TECHNICAL INFORMATION

<b>Tensile Strength</b>	0.2 N/mm <sup>2</sup>	(EN ISO 527-2)
<b>Elongation at Break</b>	450 %	(EN ISO 527-2)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	<b>Part A1 weight</b>	<b>Part A2 weight</b>
	21.05 kg	1.05 kg

### Mixing of Part B : Part C

Note: The amount of Part B can be increased to speed up the reaction as required. The minimum addition rate of Part B to Part C is 2 % (0.4 kg Part B to 20 kg Part C) and the maximum addition rate of Part B to Part C is 5 % (1 kg Part B per 20 kg Part C).

Mix ratio of Parts A1A2 : Parts BC = 1 : 1 by volume

<b>Reaction time</b>	<b>Temperature</b>	<b>2 % Part B</b>	<b>3 % Part B</b>	<b>4 % Part B</b>	<b>5 % Part B</b>
		<b>Flow / Cured</b>	<b>Flow / Cured</b>	<b>Flow / Cured</b>	<b>Flow / Cured</b>
	+5 °C	120 s / 180 s	100 s / 130 s	80 s / 90 s	55 s / 65 s
	+10 °C	80 s / 110 s	70 s / 90 s	60 s / 80 s	45 s / 55 s
	+20 °C	35 s / 45 s	30 s / 40 s	25 s / 35 s	20 s / 25 s

Note: Times are approximate.

## VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

Surfaces of cracks, joints and voids need to be clean, free of loose and friable particles, with no dust, oil, grease or any other bond-breaking substances. Any dirt must be blown out with compressed air.

### MIXING

PREPARE PART A1 AND PART A2:

1. Immediately before use mix Parts A1 and A2 at a mixing ratio of 21.50 : 1.05 parts by weight.
2. Empty the smaller container (Part A2) completely into the container of Part A1.
3. Mix the parts thoroughly with a mixer using a paddle attachment.

## PREPARE PART B AND PART C:

1. **IMPORTANT** Use a non-corroding paddle attachment immediately before use dissolve Part B (powder) in part C by thoroughly mixing for 2–3 minutes.

Note: Use the Part C container or a clean plastic container as container for mixing.

## APPLICATION

### IMPORTANT

#### Pump seizure

The pump may seize or become unusable if material accumulates within the suction hose sieves.

1. Regularly check the suction hose sieves for material residue and perform intermediate cleaning cycles.

### IMPORTANT

#### Pump blockage caused by cured material

The pump may become blocked if unused material is allowed to cure inside the pump.

1. After finishing the injection works clean the 2-C-pump thoroughly with minimum 20 L of fresh, clean water per component-side.

The Product is injected by a 2- component pump with an additional water flushing pump.

1. Prepare the material according to the mixing instructions and pump directly from the containers.  
Note: Material will be mixed and activated in the static mixer of the pump's mixing head
2. As soon as the material is cured, remove the packers.
3. Clean out drill holes approximately 10 cm deep.
4. Seal drill holes with a mortar plug.

## CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened material can only be removed mechanically.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## LEGAL NOTES

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 accordance with Sika's recommendations. 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 user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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### Product Data Sheet

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