BUILDING TRUST
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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.

WHERE TO USE

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 / CERTIFICATES

- 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

Composition / Manufacturing	3-part polyacrylic resin (Sika® Injection-304/304 PS) plus polymeric strengthening compound (Part C)
Packaging	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.

Shelf Life

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.

Colour	Part A1 (Resin)	amber liquid
	Part A2 (Accelerator)	colourless liquid
	Part B (Hardener)	white powder
	Part C (PS compound)	white liquid

Density	~1 kg/l (complete mixture, +20 °C)	
Viscosity	~35 mPa·s (complete mixture, +20 °C)	(EN ISO 3219)

TECHNICAL INFORMATION

Tensile Strength	0.2 N/mm²	(EN ISO 527-2)
Elongation at Break	450 %	(EN ISO 527-2)

APPLICATION INFORMATION

Mixing Ratio

Part A1 weight	Part A2 weight
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

Reaction Time

Temperature	2 % Part B Flow / Cured	3 % Part B Flow / Cured	4 % Part B Flow / Cured	5 % Part B Flow / Cured
+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.

BASIS OF PRODUCT DATA

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.

ENVIRONMENT, HEALTH & 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 attachmentImmediately 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.

CLEAN UP

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

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

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