

PRODUCT DATA SHEET

Sika® Injection-304 PS

Polyacrylic elastic injection system for permanent watertight sealing

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

Sika® Injection-304 PS may only be used by experienced professionals.

- Sealing of all types of leaking building components in damp or water saturated ground
- Cracks, joints, cavities in concrete, masonry or ground
- Repair of waterproofing membranes in saturated ground such as in tunnels and basements
- Backfilling of joints
- Sealing of annular gaps in tunnels
- Curtain Injection
- Subsequent waterproofing by means of damp proof courses or vertical sealings in masonry

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 comparable to water
- Cured Sika® Injection-304 PS 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 to EN 1504-5 (concrete injection, DOP No. 95847820)

PRODUCT INFORMATION

Composition	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)	20.5 kg
	Part A2 (Accelerator)	1.0 kg
	Part B (Hardener)	0.38 kg
	Part C (PS compound)	19.0 kg
	Refer to current price list for packaging variations.	
Colour	Part A1 (Resin)	amber - liquid
	Part A2 (Accelerator)	colourless - liquid
	Part B (Hardener)	white powder
	Part C (PS compound)	white - liquid
Shelf life	12 months from date of production	
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. All components must be protected from direct sunlight. Sika® Injection-304 PS, Part C must be protected from frost!	
Density	~1 kg/l (complete mixture, +20 °C)	
Viscosity	~35 mPa·s (complete mixture, +20 °C)	(EN ISO 3219)

TECHNICAL INFORMATION

Tensile strain at break ~0.2 N/mm² (DIN ISO 527) / ~450 %

APPLICATION INFORMATION

Mixing ratio	A1 : A2 = 20.5 : 1 by weight		
	B : C = 0.38 : 19 by weight		
	A1A2 : BC = 1 : 1 vol.		
	(all components come in pre-assembled container sizes to the correct mixing ratio)		
	Reaction time	2 % Part B (powder) ~0.38 kg in 19 kg Part C	
Temperature		Flow	Cured
+5 °C		~120 s	~180 s
+10 °C		~80 s	~110 s
+20 °C		~35 s	~45 s
Ambient air temperature	+5 °C min. / +35 °C max.		
Substrate temperature	+5 °C min. / +35 °C max.		

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

Due to the extreme adhesion of Component C it is recommended to regularly control the suction hose's sieves for material residues and undertake intermediate cleaning cycles. After finishing the injection works the 2-C-pump must be cleaned thoroughly with min. 20 L of fresh, clean water per component-side.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing 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

Mixing sequence

1. Part A

Mix Parts A1 and A2, which are provided according to their required mixing ratio of 20.5 : 1 parts by weight, immediately before use. Empty the smaller container (Part A2) completely into the container of Part A1. Mix the parts thoroughly with a suitable stirrer / mixing paddle.

2. Part B + Part C

Part B is a powder and must be mixed with Part C on site immediately before use. The powder can be dissolved directly in the Part C container or by mixing both Parts in a clean plastic vessel by thoroughly stirring it for 2–3 minutes with a V4A-steel or other suitable stirrer.

APPLICATION METHOD / TOOLS

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

Sika® Injection-304 PS needs to be injected by a 2-component pump with additional flushing pump (water). Prepare the material according to the mixing instructions and pump directly from the containers. Material will be mixed and activated in the static mixer of the pump's mixing head. As soon as material is cured, packers can be removed. Drill holes should be cleaned out approx. 10 cm deep and sealed with a suitable mortar plug.

CLEANING OF EQUIPMENT

Liquid material/pump cleaning only with water. Cured material can only mechanically be removed.

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

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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All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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