

PRODUCT DATA SHEET

Sika® Injection-304

Polyacrylic elastic injection resin for permanent watertight sealing

DESCRIPTION

Sika® Injection-304 is a very low viscous, elastic and very quick-gelling polyacrylic injection resin with a versatile and adjustable gelling time. The material reacts to form a waterproof, elastic and solid gel with good adhesion to both dry and wet substrates.

USES

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

- Sealing all types of leaking building components in damp or water saturated ground
- Post-construction, external injection sealing system for construction, expansion and drainage pipe joints, that are covered with damp or water saturated soil e.g. curtain injection
- Consolidation of non-cohesive soils with low permeability

PRODUCT INFORMATION

Chemical Base	3-part polyacrylic gel	
Packaging	Part A1 (Resin)	20,5 kg
	Part A2 (Accelerator)	1,0 kg
	Part B (Hardener)	0,95 kg
	Refer to current price list for packaging variations.	
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 +10 °C and +35 °C. Always refer to packaging.	
Colour	Part A1 (Resin)	Amber - liquid
	Part A2 (Accelerator)	Colourless - liquid
	Part B (Hardener)	White powder

CHARACTERISTICS / ADVANTAGES

- Permanently elastic
- 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 is insoluble in water and hydrocarbons and resistant to acids and alkalis
- Resistant to alternating freeze and thaw exposure
- Injected with a two component pump

APPROVALS / STANDARDS

Test Certificate, KTW-Large surface sealants, LADR, Certificate No. DAP-PL-3022.00

Density	Part A1 (Resin)	~1,20 kg/l	(ISO 2811) (+20 °C)
	Part A2 (Accelerator)	~0,96 kg/l	
	Part B* (Hardener)	~1,03 kg/l	

* After dilution with water

Viscosity	~7 mPa·s (complete mixture, +20 °C)	(ISO 3219)
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APPLICATION INFORMATION

Mixing Ratio	A = A1 : A2	20 : 1 parts by weight
	B solution = water : B	20 : 1 parts by weight (Standard mixture)
	A : B solution	1 : 1 parts by volume

Reference values (approx.) depend on the concentration of Part B at various application temperatures.

Reaction times

(PM 10081-11)

Material Temperature	B : Water = 0,5 % by weight	
	Increase in viscosity	Reaction time
+10 °C	~220 s	~315 s
+20 °C	~103 s	~180 s

Material Temperature	B : Water = 1,0 % by weight	
	Increase in viscosity	Reaction time
+10 °C	~150 s	~225 s
+20 °C	~72 s	~150 s

Material Temperature	B : Water = 2,0 % by weight	
	Increase in viscosity	Reaction time
+10 °C	~85 s	~150 s
+20 °C	~45 s	~90 s

Material Temperature	B : Water = 3,0 % by weight	
	Increase in viscosity	Reaction time
+10 °C	~56 s	~110 s
+20 °C	~37 s	~68 s

Material Temperature	B : Water = 5,0 % by weight (standard mixture)	
	Increase in viscosity	Reaction time
+10 °C	~50 s	~80 s
+20 °C	~28 s	~40 s

The data above are laboratory parameters and may deviate depending on the situation and conditions on site.

Ambient Air Temperature	+5 °C min. / +40 °C max.
Substrate Temperature	+5 °C min. / +40 °C max.
Curing Time	~40 s (with 5 % Component B, at 20 °C) (PM 10081-11)

BASIS OF PRODUCT DATA

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.

LIMITATIONS

- Sika® Injection-304 must be used in below ground structures.
- The conditions and location of the site the application must be inspected and surveyed, including any foundations and ground conditions, before making any new watertight sealing surfaces (curtain injection) in close proximity to buildings or within existing structures. It must also be ensured that there are no drainage systems or open pipes close to the injection areas. This survey provides information to assess the feasibility of the injection proposal, possible material consumption and positioning of the drill holes.
- Prior to the use of Sika® Injection-304, check the gel time according to the local site ambient conditions.
- Take into consideration that potlife (workability after mixing) has a shorter time than gel time (product is no longer able to be pumped/injected).
- Contact Sika technical services for specific information on resistance to hydrocarbons or chemicals.

ECOLOGY

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

MIXING

Mixing sequence

1. Part A

Mix Parts A1 and A2, which are provided according to their required mixing ratio of 20 : 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. Part A is sensitive to light and must be stored in and applied from light-proof containers.

2. Part B^{Solution}

Part B is a powder concentrate and must be mixed with water on site immediately before use. Dissolve the powder in a clean plastic vessel by thoroughly stirring it for 2–3 minutes with a V4A-steel or other suitable stirrer.

3. Part A + Part B^{Solution}

Part A (A1 + A2) and Part B solution (Part B + water) shall be mixed in two identically sized vessels. Assess the amount of water required for dissolving the Part B (approx. 18,0 litres) by adjusting the level/volume of Part B to that of Part A.

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 must only be injected with a 2-Part stainless steel injection pump, such as Sika® Injection Pump PN-2C.

CLEANING OF TOOLS

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

LOCAL RESTRICTIONS

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

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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