

Sika® Injection-306

Elastic polyacrylic injection resin used for permanent watertight sealing

Product Description

Sika® Injection-306 is a very low viscous, elastic polyacrylic injection resin with a versatile and adjustable reaction time.

Uses

- Sika® Injection-306 is used for the injection of SikaFuko® injection hoses to seal construction joints
- Sika® Injection-306 is used to seal water-bearing cracks and voids
- Sika® Injection-306 is used for making new sealing walls (curtains) in damp or water saturated ground conditions, situated in close proximity to the building component or within the building structure
- Sika® Injection-306 is used as a post-construction, external injection sealing system for construction and limited movement expansion or drainage pipe joints, that are, or will be, covered with damp or water saturated soil
- Sika® Injection-306 can also be used for the repair by injection of damaged waterproofing membranes (single and double layer system)

Characteristics / Advantages

- Adjustable curing time between 8 and 50 minutes
- Permanently elastic, can absorb limited movements
- Capable of reversibly absorbing (swelling) about 75 % by weight and releasing (shrinking) moisture
- Solvent free acrylic resin
- High pH-value of 9 to 10
- Very low viscosity comparable to that of water
- Cured Sika® Injection-306 is insoluble in water and hydrocarbons and resistant to acids and alkalis
- Environmentally friendly, can be used in ground water protection zones

Tests

Approval / Standards

Wissbau No. 2002-094-(1A) – Function test with SikaFuko VT 1
Wissbau No. 2002-094-(2A) – Function test with SikaFuko Eco 1



Product Data

Form

| | | |
|----------------|--|---|
| Colours | Component A (Resin): Accelerator: Hardener powder: | blue – transparent yellow – transparent white |
|----------------|--|---|

| | | |
|--|--|---|
| Packaging | Component A (Resin): Accelerator: Hardener powder: Measuring cup: | 2 x 8,0 kg 1 x 1,0 kg 4 x 40 g 1 piece |
| Additional Accelerator 4 x 1 kg - used for faster reaction times | | |

Storage

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|--|---|
| Storage Conditions / Shelf-Life | 12 months from date of production if stored in unopened, undamaged and original sealed packaging, in dry and lightproof conditions at temperatures between +10°C and +30°C. |
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Technical Data

| | | |
|----------------------|--|--|
| Chemical Base | 3-part polyacrylic resin | |
| Density | Component A (Resin): Accelerator: Hardener powder: | ~ 1.10 kg/l (at +20°C) ~ 1.10 kg/l (at +20°C) ~ 1.20 kg/l (at +20°C, after dissolution in water) |
| Viscosity | Of mixture: | ~ 3-11 mPa·s (at +20°C) |

System Information

Application Conditions/ Limitations

| | |
|---------------------------------|---|
| Substrate Temperature | +5°C min. / +40°C max. |
| Ambient Temperature | +5°C min. / +40°C max. |
| Environmental Conditions | Cured Sika® Injection-306 shall always be used in direct contact with damp or water saturated conditions. |
| Reaction Time | 8 to 50 minutes |

Application Instructions

| | | |
|---------------------|---|-----------|
| Mixing Ratio | A : Component A (Resin) : Accelerator / Water | 4 : 1 |
| | B : Water : Hardener powder : | 100 : 0,8 |
| | A : B | 1 : 1 |

Mixing

- 1.) The contents of 2 bags of the hardener powder are dissolved in 10 litres of water in a separate container. The hardener solution is stirred thoroughly until the hardener powder is completely dissolved.
- 2.) The necessary quantity of accelerator is selected from the enclosed metering chart, under consideration of the ambient processing temperature and the required reaction time. The chosen quantity of accelerator is diluted with water to a total quantity of 2 litres in a separate container. According to the metering chart.
- 3.) The 2 litres of accelerator solution are poured into one 8 kg canister of component A and thoroughly shaken/mixed.
- 4.) The injection resin is activated in dependence of the injection pump used:
 - a) When using a **one-component pump**, partial amounts of the premixed components are filled in a ratio of 1: 1 into a mixing container and mechanically mixed.
 - b) When using a **two-component pump**, partial amounts of the premixed components are filled into the storage container of the pump. The pump is set to work at a ratio of 1: 1 by volume.

Note for processing in one component pumps:

Workability time (pot life) =

Reaction time (see metering chart) – 10 minutes

| Metering Chart: Accelerator in ml | | Ambient Temperature | | | | | Quantity of Accelerator per 8 kg component A to, yield of 20 litres kg mixed resin (The Total Accelerator solution must be 2000 ml 2 litres – see example below) |
|---|----|---------------------|-------------|-------------|-------------|--------------|---|
| | | 5°C (41°F) | 10°C (50°F) | 20°C (68°F) | 30°C (86°F) | 40°C (104°F) | |
| Reaction time in minutes | 8 | | | 2000 * | 980 * | 380 | |
| | 10 | | | 1150 * | 480 | 240 | |
| | 12 | | 1880 * | 820 * | 320 | 180 | |
| | 15 | 1800 * | 1240 * | 480 | 220 | 100 | |
| | 20 | 1060 * | 900 * | 280 | 140 | 60 | |
| | 25 | 820 * | 480 | 200 | 80 | | |
| | 30 | 620 * | 350 | 160 | | | |
| | 35 | 440 | 280 | 120 | | | |
| | 40 | 360 | 250 | 80 | | | |
| | 45 | 320 | 220 | 78 | | | |
| | 50 | 250 | 200 | 74 | | | |
| | | | | | | | |
| | | | | | | | |

* fast reaction – additional accelerator necessary.

Example:

Ambient temperature: **10 °C (50°F)**

Required reaction time: **25 min.**

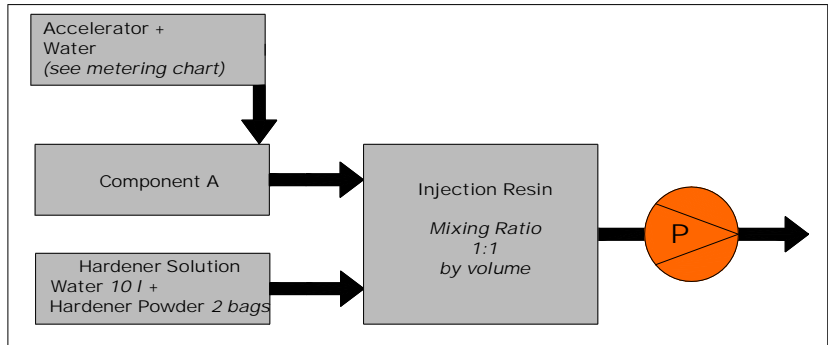
Accelerator in ml = 480 ml

Water in ml = 1520 ml

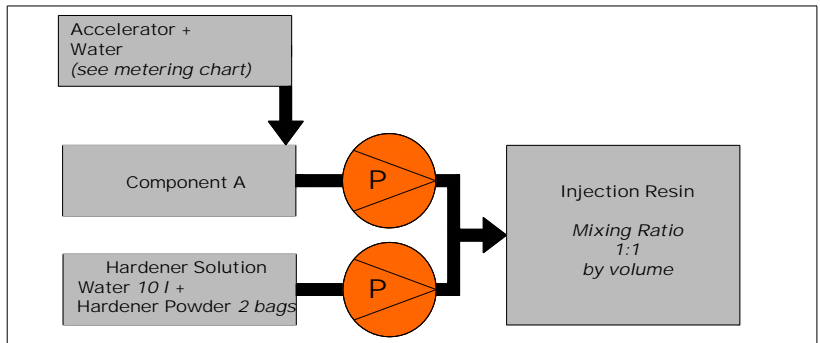
Total volume = **2000 ml**

Note:

The given data are laboratory parameters and may deviate depending on the object and conditions on site.



Mixing instructions for processing in one-component pumps



Mixing instructions for processing in two-component pumps

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|---|--|
| Application Method / Tools | Sika® Injection-306 can be used with normal one or two component pumps. Due to the low content of hardener powder the use of a stainless steel injection pump is not necessarily essential. |
| Cleaning of Tools | Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be removed mechanically. |
| Notes on Application / Limitations | <p>The conditions and location of the site the application must be inspected and surveyed, including any foundations and the ground conditions, before making any new watertight sealing surfaces (curtain injection) in close proximity to buildings or within an existing structures. It must also be ensured that there are no drainage systems or open pipes close to the injection areas.</p> <p>This survey provides the information to assess the feasibility of injection proposal and likely material consumption. This also determines the positioning of the injection drill holes.</p> |
| 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. |
| Health and Safety Information | For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related 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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