BUILDING TRUST

PRODUCT DATA SHEET

# Sika® Injection-101 RC

Polyurethane flexible injection resin for temporary waterstopping

## PRODUCT DESCRIPTION

Sika® Injection-101 RC is a 2-part, polyurethane, low viscous, fast foaming, water-reactive injection resin. It cures to a dense flexible foam.

## USES

Sika® Injection-101 RC may only be used by experienced professionals.

- Temporary waterstopping of high water intrusions in cracks, joints and cavities in concrete and masonry.
- Waterstopping in special applications such as bored or sheet pile walls, anchor heads and microtunneling.
- To achieve permanent watertight crack sealing inject with Sika® Injection-201 CE or Sika® Injection-203 after temporary waterstopping.

## CHARACTERISTICS / ADVANTAGES

- Foaming reaction only takes place in direct contact with water
- Can be injected as a single component system
- Free foaming expansion up to 40 times
- Can be accelerated using Sika® Injection-AC10 in cold temperatures (< + 10 °C)

## ENVIRONMENTAL INFORMATION

- FEICA Environmental Product Declaration (EPD)

## APPROVALS / STANDARDS

- Compilation of certified polyurethanes and injection processes for use on structures and components of federal traffic routes ZTV-ING, Part 3, Section 5 (RISS), Sika® Injection-101 RC, Bundesanstalt für Strassenwesen, 20.01.2016
- Large-surface sealants suitability according to KTW recommendations, Sika® Injection-101 RC, LADR Zentrallabor, July 2019

## PRODUCT INFORMATION

| | | |
|---|---|---|
| **Chemical Base** | Water reactive polyurethane resin | |
| **Packaging** | Part A (Resin) | 10 or 20 kg |
| | Part B ( Hardener) | 12,5 or 25 kg |
| | Refer to current price list for packaging variations. | |
| **Shelf Life** | 24 months from date of production | |
| **Storage Conditions** | The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging. | |
| **Colour** | Part A (Resin) | Colourless |
| | Part B (Hardener) | Brown |

| | | | |
|---|---|---|---|
| **Density** | Part A (Resin) | ~1,0 kg/l | (ISO 2811) |
| | Part B (Hardener) | ~1,25 kg/l | |
| | Values at +20 °C | | |
| **Viscosity** | Part A (Resin) | ~140 mPa·s | (ISO 3219) |
| | Part B (Hardener) | ~155 mPa·s | |
| | Values at +20 °C | | |

## TECHNICAL INFORMATION

| | | | |
|---|---|---|---|
| **Expansion** | Expansion start | ~15 seconds after contact with water | (EN 1406) |
| | Expansion end | ~67 seconds | |
| | Values at +20 °C | | |

## APPLICATION INFORMATION

**Mixing Ratio**

Part A : Part B = 1:1 by volume

**Reaction times**

(PM 10081-11)

**0 % Sika® Injection-AC10 ***

| Material temperature | Expansion start | Expansion end |
|---|---|---|
| +5 °C | ~19 sec | ~89 sec |
| +10 °C | ~17 sec | ~88 sec |
| +20 °C | ~16 sec | ~70 sec |

**5 % Sika® Injection-AC10 ***

| Material temperature | Expansion start | Expansion end |
|---|---|---|
| +5 °C | ~12 s | ~57 s |
| +10 °C | ~11 s | ~49 s |
| +20 °C | ~10 s | ~39 s |

**10 % Sika® Injection-AC10 ***

| Material temperature | Expansion start | Expansion end |
|---|---|---|
| +5 °C | ~9 s | ~41 s |
| +10 °C | ~8 s | ~37 s |
| +20 °C | ~7 s | ~35 s |

* Dosage of Sika® Injection-AC10 in % by weight of Sika® Injection-101 RC (Parts A+B)

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

The reaction speed (foam formation) is influenced by the temperatures of the mixed material, the structure and the contact water, plus the hydro-dynamic conditions.

Smaller volumes can be used at a ratio of Part A : Part B = 1:1 by volume

| | | |
|---|---|---|
| **Ambient Air Temperature** | +5 °C min. / +35 °C max. | |
| **Substrate Temperature** | +5 °C min. / +35 °C max. | |
| **Pot Life** | ~2 hours (at + 20 °C) | (ISO 9514) |

## 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.

## LIMITATIONS

- Remove any skin formation on the resin or hardener from the surface. Do not mix back into the liquids.
- Sika® Injection-101 RC is used for the temporary stopping of high water infiltration. Subsequently inject with Sika® Injection-201 CE or Sika® Injection-203 to achieve permanent watertight crack sealing.

## 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.

**Regulation (EC) No 1907/2006 (REACH) - Mandatory training**

As from 24 August 2023 adequate training is required before industrial or professional use of this product. For more information and a link to the training visit www.sika.com/pu-training.

## APPLICATION INSTRUCTIONS

### MIXING

Empty Parts A +B into a mixing vessel and mix slowly and thoroughly for at least 3 min (max. 250 rpm) until completely mixed.
After mixing, pour the material into the pump's feed container, stir briefly and use within the pot life.
If the substrate and/or ambient temperatures are < +10 °C, Sika® Injection-AC10 can be added to Sika® Injection-101 RC to accelerate the start of expansion.

### APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
Use injection pumps suitable for single part injection products.

### CLEANING OF TOOLS

Clean all tools and application equipment using the Sika®Injection Cleaning System or with Thinner C to remove
any polyurethane
residue immediately after use. Do not leave Thinner C in the injection pump.

## 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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