

1. Product Description

StenCare® 2IP-7 is a two-component, solvent-free polyurethane-based injection material. It rapidly hardens in contact with water, creates an impermeable foam and stops leaking. Thanks to its very low viscosity, it can penetrate even the thinnest cracks.

2. Uses

StenCare® 2IP-7 is used to provide waterproofing in underground constructions and tunnel applications. The material does not react even after mixing of two components until it comes into contact with water. **StenCare® 2IP-7** penetrates deeply, filling voids and cracks between layers with resin.

When contacted by water, it cuts off water flow by creating an impermeable and semi-flexible foam. It allows deeper and longer-range injections.

3. Application

Before application, components A and B are checked against freezing or any contamination. Frozen or contaminated products must not be used. The injection machine operates properly only when both components are homogeneous liquids.

All equipment must be dry. The reaction rate of the mixture can be adjusted by changing the amount of B component in the mixture. Refer to the Mixture Table (Section 8) for details on component ratios and reaction times.

When an entire set is mixed together, the product remains stable for at least 8 hours. Both A and B components are mixed together until a homogeneous mixture is obtained, then injected through a high-pressure injection machine. If the injection machine pump and lines contain protective oil or similar liquids, material must be pumped until clean **StenCare® 2IP-7** comes out of the nozzle.

The application should be started after making sure that the pump and lines are clean. During the application process, several holes are drilled into the substrate. Gasketed, single-use injection packers are placed in the holes.

Injection of **StenCare® 2IP-7** begins from the bottom packer. When material appears at the next packer up, injection is continued from that packer. When material appears at the topmost packer, injection is stopped, indicating that the cavity is filled with polyurethane.

4. Cleaning

The application machine must be carefully cleaned by pumping protective material through the pump and lines.

5. Safety

Applicators and supervisors must read the Material Safety Data Sheet (SDS) carefully and follow the instructions provided. Emptied packages must be handled in compliance with relevant regulations and laws. The application must be carried out by skilled workers under supervision of experts and the applicators must use all kinds of protective equipment required for the worksite and the task such as goggles, mask and gloves.

Waterproofing Polyurethane Injection Foam

Highlights

- Polyurethane water-stopping foam
- Activation with water
- Very low viscosity for the thinnest cracks
- Adjustable reaction times
- Perfect adhesion to concrete
- Low flammability
- Solvent-free, does not contain harmful volatiles to health (VOC=0)
- Safe application with low exotherm



6. Storage

The material must be kept in dry indoor storage. Recommended storage temperature is 5-30 °C. Under these conditions, the material will retain its properties in unopened containers for 12 months from the production date.

Low temperatures may cause crystallization of the product; in this case, the product can be used after heating and homogenizing at +20 °C. The product must be stirred thoroughly before use after prolonged storage.

7. Disclaimer

This document is provided for general information and reflects **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information at any time without notice.

Stenkim® warrants that its products conform to the stated specifications on delivery. The buyer is responsible for determining the product's suitability for the intended application and for all conditions of transport, storage, handling, and use. **Stenkim®** accepts no liability for results obtained under conditions outside its control. **Stenkim®**'s liability under this warranty is limited to replacement of non-conforming product and excludes any consequential or indirect damages.

8. Mixture Table

Property	Result
Expansion factor	15-25 times
Foaming start	7 seconds
Reaction time	60 seconds

Reaction times are observed by adding 10% water to the mixture in the laboratory environment.

9. Technical Data

Property	Result
Chemical Composition	Polyurethane resin and isocyanate
Solid Content	100
Color	Amber - Hazy
Density (Component A)	1.21 ± 0.03 kg/l
Density (Component B)	1.13 ± 0.03 kg/l
Flow time @23 °C	2 hours
Viscosity (Component A)	70 ± 14 cP
Viscosity (Component B)	84 ± 16 cP
Shelf Life	1 year
Packaging	25 kg plastic container sets



Stenkim® reserves the right to make changes to the values in this table at any time.

