

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 the leak. Its low viscosity lets it penetrate even the thinnest cracks.

2. Uses

StenCare® 2IP-7 is used to stop water ingress in underground structures and tunnel applications. Even after the two components are mixed, the material does not react until it comes into contact with water. **StenCare® 2IP-7** penetrates deeply, filling voids and cracks between layers with resin. On contact with water, it cuts off water flow by creating an impermeable and semi-flexible foam. It allows deep, long-reach injections.

3. Application

3.1. Application

Before application, components A and B are inspected for signs of 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 must 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, the cavity is taken to be filled with polyurethane and injection is stopped.

3.2. Cleaning

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

4. Safety

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

Water-Stopping Polyurethane Injection Foam

Highlights

- Water-activated
- Low viscosity for the thinnest cracks
- Controllable reaction time
- Good adhesion to concrete
- Low flammability
- Solvent-free; does not contain volatiles harmful to health (VOC=0)
- Safe application with low exotherm



5. Storage

The material must be kept in dry indoor storage. The 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 being warmed to +20 °C and homogenized. After prolonged storage, the product must be stirred thoroughly before use.

6. Disclaimer

This document is provided for general information and is based on **Stenkim®**'s laboratory data and field experience at the time of publication. **Stenkim®** reserves the right to revise this information without prior 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 purpose and for all conditions of transport, storage, application, 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.

7. Mixture Table

Property	Method	Result
Expansion Factor		15-25 times
Cream Time		7 seconds
Reaction Time		60 seconds

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

8. Technical Data

Property	Method	Result
Chemical Composition		Polyurethane resin and isocyanate
Solids Content (by weight)		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.

