

4/4: WestCHEM Grouting Systems

**SOLVA
STRONG**[®]
RANGE OF
CONSTRUCTION CHEMICALS



PU INJECT HF

Product:

5.5
Kg



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STRONG**[®]
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PU INJECT HF

About Product

When combined with **PU Inject HF** catalyst, **PU Inject HF** is a solvent-free polyurethane injection material. When **PU Inject HF** foams come into contact with water, their volume increases significantly and they solidify into viscoelastic foam that momentarily blocks more water intrusion. **PU Inject HF** doesn't harm bitumen or joint tapes and is resistant to acids and lyes. When applied to extremely dry surfaces, the substance does not froth right away; instead, it hardens gradually as a result of the soil's moisture and existing air being added gradually.

Uses/Advantages:

- 1: **PU Inject HF** is used for the injection of water bearing cracks and joints in concrete and stone.
- 2: **PU Inject HF** is used for Preventing water from seeping in through cracks and gaps.
- 3: Making loose stones more tightly packed.

Application Method

PU Inject HF can react with the moisture in the air and water. As a result, a thin layer may form on the liquid's surface in open containers, but this doesn't impact the injection process. Typically, **PU Inject HF** is injected into areas with water using injection nozzles and handled using motor-driven pumps.

When **PU Inject HF** comes into contact with water, it forms a strong foam and becomes solid. If the area that needs to be waterproofed doesn't have enough water, you can add more water before or after using **PU Inject HF**. This helps the material react and harden properly. Follow the guidelines and regulations for crack injection, such as ZTV-rises or Riled of the Daft, for the correct application.

Recommendation:

To make sure the product is ready for use, it's best to store it for at least 12 hours at a temperature of at least 15°C. This helps ensure that the product is within the recommended temperature range of 15°C to 30°C for proper processing..

Application Guidelines:

PU Inject HF is a comprehensive solution used to fill gaps and seal leaks in concrete, brick, or sandy soil structures.

You can control how fast the reaction happens by changing the catalyst amount, anywhere from 2% to 10%. When it reacts with water, it forms a somewhat flexible foam made of polyurethane. It doesn't like water and can withstand various chemicals. You can adjust how quickly it reacts, anywhere from 30 seconds to 12 minutes (look at the table for specific times). You can use a specialized pump designed for high pressure to inject the pre-mixed resin.

Note: Always make sure that the material is homogeneous, mix the resin using a dry clean drill and paddle mixer for a minimum of 15 sec before application.

It is recommended that the material be conditioned to appropriate temperatures for at least 12 hours prior to application.

Important: Keep containers sealed whilst not being used. Careful consideration should be given to applications below 10°C on a falling thermometer to avoid possible crystallisation.

Physiological Behaviour and Protective Measures:

PU Inject HF is physiologically harmless after complete hardening.

The liquid component is harmful; Symbol XN.

PU Inject HF Resin	
Appearance	Brown liquid
Viscosity at 25°C Brookfield DV11 spindle# 2 at 60rpm	300-450 mPa·s
Flash point	> 180°C
Density at 25°C	1.13
Catalyst	
Appearance	Clear liquid
Viscosity at 25°C Brookfield DV11 spindle# 2 at 60 rpm	25-40 mPa·s
Flash point	> 180°C
Density at 25°C	1.00

PU Inject HF -All tests carried out using the following mix ratio:

PU Inject HF: 100 parts by weight
Catalyst: As a percentage of **PU Inject HF** weight, as stated in the results.

Water: In all tests, 10 parts by weight.

Cream Time:					
Solva PU Inject HF	1%	2%	5%	10%	
10°C	128sec	125sec	41sec	25sec	
15°C	100sec	69sec	36sec	24sec	
25°C	73sec	55sec	24sec	20sec	
35°C	60sec	30sec	25sec	19sec	
Rest Time:					
Solva PU Inject HF	1%	2%	5%	10%	
10°C	10min	5m:49sec	124sec	78sec	
15°C	9min	5m:5sec	120sec	75sec	
25°C	8min	4m:45sec	115sec	63sec	
35°C	5min	3m:4sec	108sec	60sec	
Expansion Rate:					
Solva PU Inject HF	1%	2%	5%	10%	
10°C	8X	11X	15X	28X	
15°C	9X	14X	20X	29X	
25°C	10X	15X	25X	30X	
35°C	10X	20X	25X	30X	

All technical data stated herein is based on tests carried out under laboratory conditions.

Consumption:

If there are existing narrow cracks (about 0.2 mm wide), you need to drill holes around 20cm apart along the cracks. Clean the drilled holes using compressed air that is free from oil and dust.

Put the injection packers in the cleaned holes.

Use the right injection equipment to inject **PU Inject HF** into the holes.

For vertical cracks, begin the injection from the left side.

Packaging:

PU Inject HF is available in packages with the following specifications:

Each package contains 5.5 kilograms in total, with 5.0 kilograms of resin and 0.5 kilograms of catalyst.

Storage and shelf life:

The materials can be stored in tightly sealed drums for a period of 12 months.

The resin should be stored in its original sealed drum for up to 12 months.

The catalyst should also be kept in its original sealed drum for a maximum of 12 months.

It's important to note that both of these materials are sensitive to temperature and moisture. Therefore, they should be stored in an area where the temperature does not go above 40°C or drop below 10°C.

Annotation:

Areas that are not intended to be treated should be shielded from the effects of **PU Inject HF**. Any applications that are not explicitly mentioned in this data sheet should only be undertaken after getting in touch with our technical department and obtaining written confirmation from them.

Regarding disposal:

Liquid residues should be disposed of according to EAK 08 01 11 regulations for paints and lacquers containing organic solvents or other hazardous substances.

Hardened product residues should be disposed of in accordance with EAK 17 02 03 regulations for plastics.

Please consult the current EC-safety data sheet for further information and guidance on safe disposal.

Disposal: Liquid remainders: EAK 08 01 11 paints and lacquers containing organic solvents or other dangerous substances
Hardened product remainders: EAK 17 02 03 plastics.

See valid EC-safety data sheet.

Health And Safety:

It's recommended to wear protective goggles when spraying this substance. Avoid breathing in the spray mist. If it comes into contact with your skin, clean it off immediately. In case of contact with the eyes, seek medical advice. Your safety is important!



PU INJECT HF

Legal Notes: The information, and, in particular, the recommendations relating to the application and end-use of West Chem's products, are given in good faith based on West Chem's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with West Chem's recommendations. In practice, the difference in materials, substrates and actual site conditions are such that no warranty in respect of merchant ability 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 & purpose. West Chem 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.