

CRYST INJECT FOAM®

Article-No.: 01100

FLEXIBLE POLYURETHANE INJECTION FOAM FOR FAST AND PERMANENT WATERTIGHT SOLUTION

DESCRIPTION

CRYST INJECT FOAM® is a flexible, water-reactive polyurethane injection foam system designed to be fast foaming resin, which is used as a water stopper permanently against strong water flow. CRYST INJECT FOAM® is typically used to repair cracks or failed joints in concrete structures, and tunneling to seal fractures in rock formations. Component B serves as a catalyst and adjusts the reaction time. A lower dosage leads to a prolongation of the reaction time. In contact with minimal amounts of water, CRYST INJECT FOAM® reacts very fast to foam with closed cellular pores and shape-retaining hard flexible PU foam. After curing the material does not shrink due to wet/dry cycles. CRYST INJECT FOAM® has excellent penetrates deep in fine cracks to seal water and moist cracks permanently, making a watertight system.

FEATURE AND BENEFITS

- Permanent watertight solution.
- Used as a one-component system.
- Long processing time when a mixed component is kept in closed condition.
- High volume expansion within a few seconds is more than 30
- Reacts only in contact with water and humidity.
- Phthalate plasticizer-free.
- Good chemical resistance.
- Excellent adhesion to wet surfaces on mineral building materials, rocks, metal, and certain plastics.
- Shape-retaining does not shrink after curing.
- Low viscous that can penetrate deep in fine cracks.
- Reaction time adjustable.
- Stops pressurized water.
- Ideal for potable water.

FIELD OF APPLICATION

CRYST INJECT FOAM® is recommended to stop strong water flow in cracks, big gaps, voids, and joints for concrete structures, brickwork, and natural and artificial stonework.

Typical areas of application are e.g., tunnels, basements, diaphragm walls, manholes, elevator pits, reservoirs, sewage tanks, water tanks, pools, soil stabilization, etc.

TECHNICAL DATA

Material properties

	Component A	Component B	
Base:	resin	catalyst	
Form:	liquid	liquid	
Appearance:	brown	transparent	
Density:	1.15 g/ml	0.95 g/ml	DIN 53479
Viscosity	100-400 mPas	25-100 mPas	EN ISO 3219
Mixing ratio:	20: 2 by weight parts		

Standard mix ratio properties

Reaction time	approx. 5 – 25 seconds, adjustable with component B (catalyst)		
Max volume expansion:	30-40 times (unconfined)		
Mixed viscosity:	approx. 135 mPas	DIN 53479	
Mixed density:	approx. 1.15 g/ml	DIN 53479	
Pot life:	(when not in contact with water) >2 hours in closed condition		

Consumption: depends of cavity occurrence
Application temperature: +8°C up to +40°C

RECOMMENDED TOOLS

Single-component injection pump, gloves, safety glasses, CRYST PACKER, CRYST MORTAR, CRYST CLEANER.

DIRECTION FOR USE

Before starting the injection procedure, an analysis of the waterproofed subject is required. Based on analysis results (water situation, crack properties, crack width, cavity occurrence, water temperature, etc.) For crack and concrete joint Injection packers must be installed in a 45° direction to the crack or concrete joint. The packers must be set and tightened by using the right tools, so they do not release even at high injection pressures. The distance of the drilled holes depends on the width of the crack.

The CRYST INJECT FOAM® components are supplied and ready to use. So will be injected through a 1K injection pump. The material (components A + B) should be mixed in the predetermined mixing ratio and filled in the injection pump (material hopper) afterward. Use only the required quantity of this mixture.

With B-component the reaction time can be adjusted. The reaction time depends on the temperature of the material, the structure of the construction, and the possible amount of water present. Higher temperatures will speed up the reaction time and lower temperatures will slow it down.

The ready mixed material should be injected within the specified processing time/pot life. CRYST INJECT FOAM® has to be injected as long as the water leakage is stopped and no flowing water is observed begin the injection at the lowest point of the crack. Depending on cavity occurrence it can take seconds or minutes. The injection pressure can rise depending on the site situation. Change to the next installed packer after the injection material came out of the next packer, of the crack surface, or out of the joint. Continue the procedure until the crack is completely filled with CRYST INJECT FOAM®.

After complete curing (reaction) of CRYST INJECT FOAM® Fill and seal all holes left by the injection packers with CRYST MORTAR®. Depending on cavity occurrence the mentioned material consumption can change.

Tools and equipment should be cleaned immediately after use by CRYST CLEANER. Cured material can only be removed mechanically.

NOTE:

- For more detailed instructions, or information concerning the compatibility of the CRYSTARM® application contact the CRYSTARM® Technical Department or your local CRYSTARM® representative.

PACKAGING

CRYST INJECT FOAM® is available in
Component A (Resin): 20 ltr metal canister
Component B (Catalyst): 2 ltr metal canister

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

STORAGE & SHELF LIFE

Keep CRYSTARM products must be stored dry and at a temperature of no less than 45°F (7°C). 15 months is the maximum shelf life when stored under proper conditions in original unopened packaging.

SAFETY HANDLING

Take adequate precautions, such as wearing protective gloves and using breathing apparatus if applied in enclosed environments. If contact is made, flush areas with lots of water. For further information please refer to Safety Data Sheet. KEEP OUT OF REACH OF CHILDREN.

CRYSTARM®

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WARRANTY: The Manufacturer warrants that the products manufactured by it conform to the formulation standards contained in all components in their proper proportion and are free from material defects. If any of the products are found to be defective the subsequent liability to The

Manufacturer shall be limited only to the replacement of the product proven to be defective and shall not be liable for any other claim or for incidental or any consequential damages that may arise directly or indirectly with the said defective product. The user shall determine the suitability of the product for its intended use and the user assumes all liability in connection therein and the manufacturer shall not be liable save for terms of this warranty.