

CHEM PU 50

HYDROPHILIC FLEXIBLE POLYURETHANE INJECTION GROUT

DESCRIPTION:

Chem PU 50 is a single component hydrophilic polyurethane in combination with polyether polyols. It only reacts when it comes in contact with water and forms a flexible polyurethane seal and stops active leakage.

After injection has taken place, the Chem PU 50 will foam to expand and fill the void, forming a tight, impermeable elastomeric seal, stopping the water flow.

KEY BENEFITS:

- Potable water certified
- High tensile adhesion
- Solvent-free, environmentally safe
- Excellent adhesion to most surfaces including concrete, brick and mortar
- Resistant to most organic solvents, mild acids and alkalis
- Rapidly forms a highly resilient flexible seal that allows movement to the crack, fracture or joint
- Reacts even with seawater or mineral water.

TYPICAL APPLICATIONS:

Chem PU 50 is a hydrophilic polyurethane prepolymer liquid for hydrophilic polymer resin type water stopping.

It can be injected directly into a leaking crack, fracture or joint, or it can be injected 1:1 with water.

TECHNICAL DATA:

CHEM PU 50	
Appearance	Opaque liquid
Viscosity at 25°C Brookfield DV 11 spindle no. 2 at 60 rpm	450 - 600 mPa·s
Density at 25°C	1.1
Elongation thick section	> 34%
Elongation thin section	> 400%
Adhesion Testing	3.84 MPa

Ratio+	Cream Time	Time Rise	Foaming Ratio
1:1	50 sec	98 sec	5X
1:2	42 sec	90 sec	5X
1:3	38 sec	110 sec	6X
1:4	30 sec	120 sec	7X
Ratio between Water: Resin at 25°C			

Ratio+	Cream Time	Time Rise	Foaming Ratio
10°C	80	180	4X
20°C	55	130	4X
25°C	50	98	5X
30°C	42	90	6X
Ratio between Water: Resin at 25°C			

APPLICATION GUIDELINES:

Chem PU 50 can be injected by two methods:

1. Single Component Pump that is equipped for high pressure. The resin will react with the water in the structure and foam.
2. Twin Piston Pump water / resin ratio can be varied to form different density foams as tabled shown beside.

Note: It is recommended that the material be conditioned to appropriate temperatures for at least 12 hours prior to application. Always make sure that the material is homogenous, mix the resin using a dry clean drill and paddle mixer for a minimum of 15 sec before application.

At temperatures below 10°C crystallization may occur. However, after heating (indirect heat) and mixing, the liquid is restored to its original quality.

PACKAGING:

Chem PU 50 is supplied in 1 kg Pack.

STORAGE:

Chem PU 50 should be stored at room temperature (min 10°C and max 38°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of one year can be expected.

