

# Polygrout 500

## Single component, hydrophobic PU injection grout

### Description

**Polygrout 500** is a hydrophobic grout based on polyurethane. Upon contact with water, **Polygrout 500** reacts to form a closed cell rubber-like foam while expanding its volume up to 27 times. The cured material is of a constant volume. Since water is not a component of the foam structure, the cured material is essentially not affected by water or dryness. The reacted material does not shrink or swell.

- Negative side application possible
- Deep penetration into very small cracks
- Foam increases in volume to fill cavities and voids
- Excellent bond to surfaces
- Good adhesive strength, tolerant of movement
- Inert after curing, constant volume, no shrinkage
- Does not create new cracks

### Fields of application

- Defective concrete (cracked or honeycombed)
- Concrete joints, Limestone, Brick construction
- Pipe intrusions, Waste water tanks
- Tunnels, Dams, Subway (Metro), Sewers, Manholes, Utility boxes, etc.
- Soil stabilization.

### Technical characteristics

Form:	Liquid
Colour	Dark brown
Density:	1.15 ± 0.05 g/cm <sup>3</sup>
Solubility in water	Hydrophobic
Viscosity	100-200 mPa·s
Max. Expansion (at 25°C)	2,700 % [Ratio 10:1 Resin : Water]

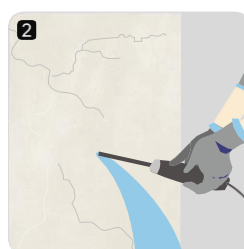
Induction Time (at 25°C)	15 sec [Ratio 2:1 Resin : Water]
Gel Time (at 25°C)	110 sec [Ratio 2:1 Resin : Water]
Tensile Shear Strength (at 243°C)	4 N/mm <sup>2</sup>
Appearance	Light yellow PU Foam
Corrosiveness	Non - corrosive
Chemical Resistance	Resistant to most organic Solvent, Mild Acids, Alkali

### Directions to use



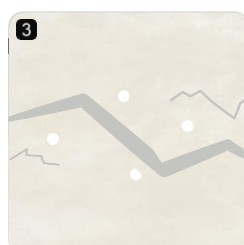
#### Check crack area

Check crack area and Clean up the surface with wire brush or grinder.



#### Drill holes

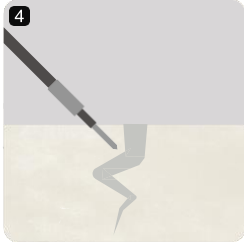
Drill holes near cracks using hammer drill, with 45° angle from surface as image 2-1. To prevent that packers don't penetrate through a crack



#### Positioning Zigzag

As image 3, hole positions must be zigzag.

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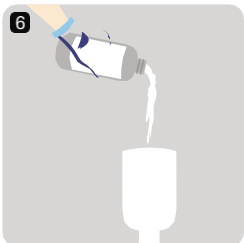
## Keep 15-20cm distance

Make a hole as per images 2 & 3 each separated by gap of 15-20 cm from each other.



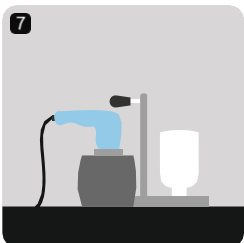
## Insert packers

Insert packers into the drilled holes. Fasten packers tightly using T-wrench.



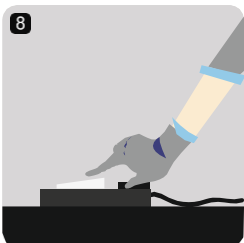
## Pour PU injection resin

Pour the 'Polygrout 500' into the plastic bottle



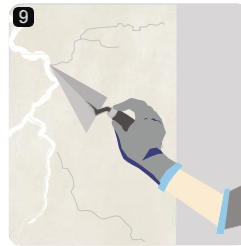
## Connect the coupler

Connect the grease coupler with the installed packer. (Inject first at low area, and then go to upper area) Down up.



## Inject PU resin

Push the switch for running machine, and inject PU resin into a hole. Start with low pressure, and increase pressure. When PU resin flows out from the cracks, stop injection, and move to another packer, and start injection again



## Remove packers

After finishing injection work, remove packers by hitting packers using a hammer. Clean the surface using a scraper or a grinder, and if needed, coat with sealing materials. How one will inject PU, after packer removal. Damaged area can be sealed with polymer modified mortar.



## Clean the machine

After doing injection grouting, clean the machine properly using xylene thinner, pour that Xylene thinner in the jar of the grouting machine and follow the procedure of cleaning..

## Packaging

05kg, 10kg & 20kg Pal.

## Shelf life

12 months from production date if stored in original, unopened packaging, at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.

## Health & safety

Avoid direct contact with this product. Use of safety glasses, rubber gloves, and protective clothing is recommended. If contact occurs, wash affected areas with mild soap and water. Keep product out of reach of children.

Refer to Safety Data Sheet for complete health and safety information.