



RIGID HYDROPHOBIC INJECTION RESIN

Product Description

PUR-X® 100 is a 1-component, hydrophobic, water reactive, solvent and phthalate free, low viscosity polyurethane injection resin.

In contact with water the PUR-X® 100 will expand and react into a rigid closed cell foam. After full cure, the product will set as a permanent seal inside a crack or joint, guaranteeing a long-lasting waterproofing.

Uses

- Cutting off High pressure / High waterflow leaks
- Basement waterproofing
- Leaks in diaphragm walls, secant piles
- Pre-Injection in soil in front of tunnel excavations
- Stabilisation and water cut-off of large cracks, voids and gravel layers
- Soil stabilisation and anchors in porous geology
- Water cut-off of sewer water leaks and sewer stabilisation
- Probe Grouting (injection from the surface) around pipes
- Manhole and sewer pipe waterproofing

Benefits

Single component, easy application

Depending on the actual site conditions, reaction times can be adjusted by adding PUR-X® 100 Cat accelerator.

Environmentally friendly product.

High mechanical and chemical resistance of the cured polyurethane.

Installation Guide

Drill a hole of the appropriate diameter under an angle of 45° into the crack or joint, preferably upto half the thickness of the wall thickness. Fix a packer with the correct diameter into the borehole.

Determine the necessary reaction time of the resin. Read from the mixing table the required amount of catalyst that needs to be added in order to achieve that reaction time.

Mix the PUR-X® 100 Cat thoroughly in the PUR-X® 100 resin.

Make sure that the injection pump is fully operational. If necessary, pre inject water first into the crack or joint; this to make sure there is enough water present for the resin to react.

Connect the pump to the first packer. The starting point of the injection depends on the actual site conditions. For vertical cracks, normally the lowest packer would be the first injection point.

Start the injection at a low pressure. Increase the pressure until the resin starts to flow into the joint or crack. Move to the next packer when resin starts to flow out from the crack or joint or when the resin has reached the next injection point.

Allow the resin to react. After the set reaction time, return to the first packer and inject again if possible. When the resin does not flow into any packer anymore, stop the injection.

With a separate pump, pump a bit of water in each of the packers in order to allow the resin in the borehole and packer to set as well.

After all the resin has fully reacted, remove the packers and patch up the injection holes with a suitable cementitious material.

After all injection works have been finished, empty the hopper of the pump and flush the pump with pump cleaner or a water-free solvent. Clean injection hose and injection nipple with pump cleaner or solvent as well.



Physical Properties

Appearance

Yellow amberish resin

PUR-X® 100 Resin

Viscosity @ 21°C 188 cPs

Density +/- 1.05 kg/dm³

PUR-X® 100 Cat accelerator

Viscosity @ 21°C 22 cPs

Density +/- 0.92 kg/dm³

Flash Point > 150 °C

REACTION TIMES

| PUR-X® 100 Cat | 15°C | | 20°C | | 25°C | | 30°C | | Volume |
|----------------|-------|------|-------|------|-------|------|-------|-----|-----------|
| Accelerator | start | end | start | end | start | end | start | end | Expansion |
| 2% | 50" | 280" | 40" | 160" | 30" | 100" | 20" | 75" | 14 V |
| 5% | 31" | 78" | 30" | 75" | 20" | 69" | 18" | 60" | 16 V |
| 10% | 20" | 61" | 18" | 55" | 14" | 40" | 11" | 35" | 18 V |

Consumption

Consumption has to be assessed on site and is influenced by the amount of water leaking, thickness of the concrete slab or wall, presence of voids in and around the concrete etc.

Packaging

PUR-X® 100 is packed in plastic jerry cans of 20 kg.

PUR-X® 100 CAT is packed in plastic bottles of 2 kg.

(other packaging formats are available on request)

Shelf Life and Storage

PUR-X® 100 is hydroactive and should be shielded from moisture. Storage temperature should be between 5 and 40°C.

Shelf life of the resin: 24 months in original packaging.

Shelf life of the accelerator: 24 months in original packaging

Once opened, containers should be used as soon as possible.

Health and Safety

Avoid contact with eyes and skin, always use personal protective equipment in compliance with local regulations.

Read the relevant Material Safety Data Sheet before use. Material Safety Data Sheets are available on www.neoferma.com

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NEOFERMA AUSTRALIA PTY LTD

Tel: +61 (0)7 5576 4922 Fax: +61 (0)7 5576 4933

Address: PO Box 324, West Burleigh, QLD, Australia 4219

ABN 72 094 461 042

www.neoferma.com

