UNIFIX - PU60

SINGLE COMPONENT WATER-BASED HYDROPHILIC FLEXIBLE PU GROUT



Product Features

UNIFIX-PU60 is a hydrophilic hydro-active injection grout based on an MDI (methylenediphenylisocyanate) polyurethane. **UNIFIX-PU60 has very fast reaction time and strong tensile strength.** When **UNIFIX-PU60** reacts with water, **it starts to foam and expand very quickly.** As the grout reacts, it expands and stops the water leak within a very short period of time. **UNIFIX-PU60** is **one of most popular choices among all the waterproofing grout.**

Another major advantage in our newest **UNIFIX-PU60** is the ease of application. Unlike other leading two-component grout in the market, **UNIFIX-PU60** polyurethane grout is a one-component resin.

No catalyst or second component is needed during the injection mixing. Expansion ratio depends on the amount of water added to the resin mixture and the moisture level in its environment. **It reacts to a very dense and highly flexible material foam.**

Advantages

- **Fast Leak Sealing:** Rapidly expands upon water contact to stop active leaks in seconds.
- **Single-Component Convenience:** Ready to inject directly with no secondary catalyst or mixing required.
- **Flexible & Dense Foam:** Cures into a tough, flexible foam that withstands structural movement.
- **High Tensile Strength:** Delivers strong structural performance against high water pressure.
- **Hydro-Active Reaction:** Actively binds with ambient moisture for reliable void-filling.
- **Adaptive Expansion:** Expansion ratio automatically responds to the moisture level present.

Fields of Application

- Stopping running or gushing water through cracks and construction joints in basements, lift pits and retaining walls
- Sealing leaks in tunnels, culverts and underground car parks
- Sealing leaks in water tanks, reservoirs and pump pits, and around pipe penetrations
- Curtain grouting behind basement walls and diaphragm walls to form a water-stopping zone
- Consolidating loose soil and filling fine voids behind structures where the ground stays wet

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UNIFIX - PU60

Physical Properties

Material	:	MDI Polyurethane
Appearance	:	Yellow
Packing	:	10 kg / pail

Technical Properties

Elongation	:	100%
Tensile Strength	:	0.49 MPa (71 psi)
Adhesive Strength	:	0.21 MPa (30 psi)
Corrosiveness	:	Non-corrosive
Storage T.P. 20°C	:	12 months
Toxicity	:	Cured material is essentially non-toxic
Shrinkage	:	No changes
Gel Time	:	≤ 150 sec (25°C)
Setting Time	:	300 sec (25°C)
Solid	:	≥ 75%
Density , g/ml	:	≥ 1.00 g/cm³
Viscosity	:	≤ 1,000 cps
Expansion Rate	:	≥ 350% (Foaming Rate), ≥ 20% (Water Expansion)
Foaming Time	:	180 sec @ 25°C

Important Note / Special Note

- Do not use water to flush or clean the pump, hose or tools (it reacts with the resin and blocks equipment)
- **Do Not Overtighten:** Tighten injection packers carefully to a secure fit only; excessive torque can damage the packer.

This technical data sheet is given in good faith and does not guarantee the application work.
All Unity Reliance technical data sheets & method statements are updated on a regular basis and can be subject to change without notice.
It is the user's responsibility to obtain the latest version of the information required.

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Accessories



HIGH PRESSURE INJECTION MACHINE M-1500



HIGH PRESSURE INJECTION HOSE



PACKERS & CONNECTORS

Shelf Life & Storage

UNIFIX-PU60 SHOULD BE STORED IN A DRY AND COOL PLACE AT AROUND 20°C. Temperature above 50°C may cause premature formation of insoluble solids. **UNIFIX-PU60** maintains a shelf life of **12 months** when stored unopened in its original, undamaged packaging under dry, cool conditions away from direct sunlight.

Health & Safety

Contains isocyanates. Flammable liquid before cure. Avoid contact with skin and eyes; use gloves, goggles, and protective clothing. Use full-face protection during injection. Ensure adequate ventilation. Refer to the Safety Data Sheet (SDS) for detailed guidance.

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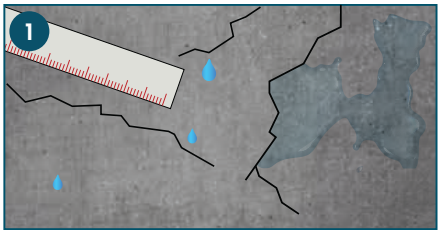
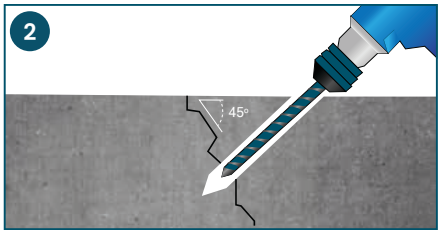
Installation Procedures

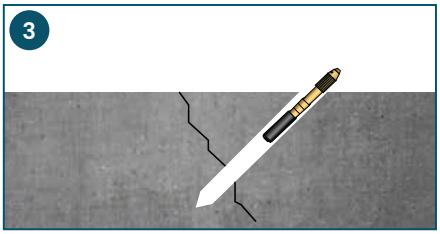
1 Surface Preparation | 2 Injection | 3 Finishing



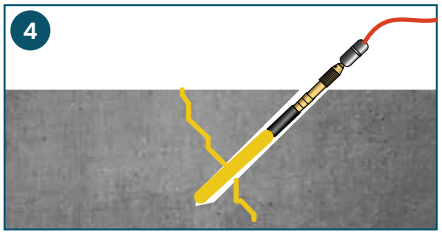
PREPARATION



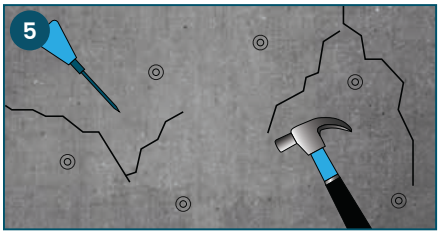
DRILLING



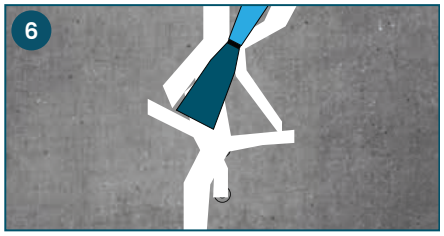
PACKER INSTALLATION



INJECTION



REMOVING OF PACKER



FINISHING

Step 1
SURFACE PREPARATION

1 Preparation
Clean the concrete surface, measure the width and thickness of the crack and inspect the leakage condition of the structure.

2 Drilling
Drill 10 mm or 13 mm holes about 40–50 mm away from the leaking spot at about 45° until the hole intercepts the crack or leaking point. Use a drill bit of the same diameter as the injection packer.

Step 2
INJECTION

3 Packer installation
Clean the drilled hole with an air blower or water, insert the packer and tighten the rubber sleeve securely. Do not over-tighten, as the packer may be damaged.

4 Injection
Inject UNIFIX-PU60 with the M-1500 high-pressure injection machine and hold the pressure at 5000 psi for a few minutes before moving to the next point. Re-inject points as needed, replacing used packers, until the crack is fully filled and no leakage remains.

Step 3
FINISHING

5 Removing of packer
Allow UNIFIX-PU60 to cure for 24 hours, then remove the packers by breaking them off with a plier or hammer.

6 Finishing
Remove cured grout from the surface and plug all holes with suitable mortar. Clean tools with thinner immediately after use to prevent blockage. Do not use water.

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