

REC PU INJECTION 009

HYDROPHOBIC POLYURETHANE GROUT

DESCRIPTION

REC PU INJECTION 009 is a hydrophobic polyurethane compound that is injected into concrete and other sound substrates to stop water from entering occupied or unwanted areas. The reaction time of **REC PU INJECTION 009** is controlled through the use of its accelerator, known as **REC ACCELERATOR**. **REC PU INJECTION 009** forms a watertight seal within the substrate that remains even after the water has subsided.

PROPERTIES

- Bonds to wet and dry substrates.
- Fast reaction time with added accelerator.
- Needs very little water to react and cure.
- Very little shrinkage.
- Remains active when the water subsides.
- Excellent elongation to handle moving cracks and joints.
- Fast reaction time with added accelerator.
- Very little shrinkage.

PRIMARY APPLICATIONS

REC PU INJECTION 009 is suitable for:

- Leaking cracks and joints.
- Water treatment facilities.
- Wastewater treatment facilities.
- Mines & tunnels.
- Sewers & manholes.
- Below-grade walls subject to high water tables.

TECHNICAL INFORMATION

Typical Properties - Liquid	Results
Viscosity (25°C) (ASTM D 1638)	500 cps
Specific Gravity	1.058
Physical State	Liquid
Color	Amber
Mixing Ratio (A: B)	2:1

Typical Properties - Cured	Results
Density (ASTM D 1622)	64 kg/m ³
Elongation (ASTM D 638)	40%
Tensile Strength (ASTM D 638)	27 psi (0.19 MPa)
Shear Strength (ASTM C 273)	16 psi (0.11 MPa)
Water Absorption (ASTM D 2842)	< 1% by volume

PACKAGING

REC PU INJECTION 009 is packaged in a 30 kg unit, consisting of:

- Component A (Resin): 20 kg
- Component B (Accelerator): 10 kg

INSTRUCTIONS FOR USE

SURFACE PREPARATION

To ensure the project is completed properly, clean the exterior of the surface so that the full extent of the crack or joint can be seen. This will aid in proper hole drilling. Start by determining the thickness of the concrete substrate that will be repaired. This will be used in the spacing of packers. Starting at the lowest point of the crack, triangulate the position of the first hole to be drilled so it will intersect the crack at a 45° angle, halfway through the thickness of the concrete. Drill a 5/8" (16 mm) hole in this position and ensure that the bit used is long enough to pass through the crack. Drill the next hole in the same manner on the opposite side of the crack. The spacing between holes should be equal to the thickness of the concrete. Continue to drill holes in the same manner, moving up the crack until the entire length of the crack or joint has an equal chance of receiving the grout. Install 5/8" (16 mm) injection packers into the drilled holes and tighten. Inject water through the packers to make sure they do not leak around the sides. This water injection will also flush out any dust and debris that is in the crack due to the drilling process.

MIXING

Prior to injecting **REC PU INJECTION 009**, stir the material and the accelerator. Do not use high- speed mixing equipment and avoid whipping air into the product. Pour the appropriate amount of **REC ACCELERATOR** into part B and mix on slow speed for one to two minutes to ensure the accelerator is fully mixed in it. The standard mixing ratio should be used as per datasheet. Do not mix less than the minimum amount of accelerator because the material may not react correctly, especially in colder weather. Do not add more than the maximum amount of accelerator or the material risks shrinking, thus allowing water to pass through the crack or joint again.

PLACEMENT

Once the injection packers have been set and the drilled holes and crack have been flushed out with water, injection of the material can begin. Start at the lowest point of a vertical crack and work upwards. Pump **REC PU INJECTION 009** into the packer until foaming material comes out the face of the crack and starts to approach the next packer. On a horizontal crack, start at the end that was first installed and flushed with water. The more water left in the crack and injection site, the better. Move the injection head to the second packer and repeat for the entire length of the crack. A standard airless paint pump can be used for this application having injection pressure of 200–3000 psi (1.4– 20 MPa) depending on the width and depth of the crack. For large cracks and joints, oakum rope or a similar open- celled structure device can be soaked in **REC PU INJECTION 009** and placed into the crack or joint. Once **REC PU INJECTION 009** has cured, the packers can be removed or cut off flush with the surrounding surface. Any grout cured outside of the face of the crack can be cut back with a margin trowel or similar scraping tool. The packer holes can then be filled in with Reckon Chemical's Speed Plug hydraulic cement and finished as desired.

PRECAUTIONS

- Colder temperatures will affect the viscosity and setting times of the product.
- Avoid exceeding 32°C when warming product.
- Store material in moisture-free packaging.
- Atmospheric moisture can cause a foam "head" on the product inside of the pail. Remove the foam and the remaining material can be used.

STORAGE

All materials have a one-year shelf life in their original, unopened packages. This product is moisture sensitive and need to remain in airtight containers.

SAFETY PRECAUTIONS

Avoid contact with eyes and prolonged contact with skin. Avoid inhalation of dust during mixing. Always wear suitable protective gloves, eye protection and protective clothing. Use appropriate respiratory protection where dust generation cannot be adequately controlled. Do not eat, drink or smoke while handling the product. Wash hands thoroughly after use. In case of contact with eyes or skin, rinse immediately with plenty of clean water. If accidentally swallowed or if adverse symptoms occur, seek medical attention immediately.

QUALITY STATEMENT

All our products are manufactured to comply with our internal quality management system to ensure consistency and quality.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use. This Data Sheet version is the latest one. The company may modify it without any prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's head office located in Lahore.

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