

DryTex INSTA 502

Flexible Polyurethane Injection Resin

DryTex INSTA 502 is a Polyurethane Injection resin designed to seal cracks in the structures. INSTA 502 polyurethane resin rapidly cures to form impermeable flexible seal. INSTA 502 is solvent free and resistant to hydrolysis and use for sealing of leakages or to stop active water leaks with a high flow or high hydrostatic pressure. This high grade injection resin is designed for application in damp and dry cracks. Good adhesive properties and product flexibility minimize formation of new cracks in the structure.

Features

- Forms a high strength permanent sealing with high strength in the crack or joint.
- Low viscosity allows deep penetration in to finer cracks
- Single injection sealing of water-bearing cracks and joints
- Highly Flexible to accommodate differential movements
- Withstands high hydrostatic pressures
- Non toxic when contacted with drinking water.
- High density and elasticity foam with excellent waterproof property.
- Excellent adhesion to mineral construction materials
- Compatible with concrete, steel, masonry mortar, GRC and various substrates
- It is chemically resistant against water, salts, acids and alkali, mineral oils, fungus and bacteria,
- Suitable for Ground water, sea water and petroleum products.
- Comply with NSF/ANSI 61-5 std for potable water and resistant to biological attack.



Application Field

Ideal to seal the moving and non moving cracks associated with building sub structure ,slab, roof, masonry, reservoirs , dam , tunnel , bridge, man hole and specified constructions. Suitable for basement waterproofing, permanent sealing to stop active leaks from concrete cracks. Good for new construction and repair on existing structures.

Technical Specification

Properties	Typical Value	Standard
Appearance	Transparent Brown Liquid Resin	
Application temperature	≥ 5°C	
Solids	100 %	ASTM D 1010
Density	≥ 1 g/cm ³	ASTM D 3800-79
Elongation	≥ 100 %	ASTM D 638
Tensile strength	≥ 300 psi	ASTM D 638
Adhesion strength	≥ 275	
Fire resistance	B2	DIN 4102-1

engineered to perform

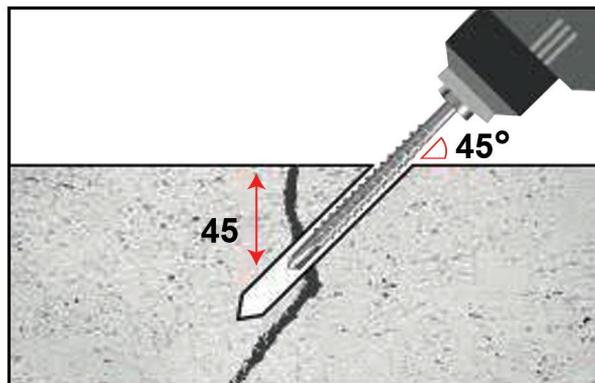
Typical General Application Steps

STEP 1 – Preliminary Analysis

Analysis helps the technician to identify the exact location and the width of the crack to be injected. Sometimes the concrete surface is hidden under a surface of mineral deposits left from long-term water leakage. Items that obscure the crack should be removed, because the crack must to be seen clearly in order to layout the drilling patterns for the injection holes

STEP 2 – Preparation of the substrate

For leaking joints, injection holes to be angle drilled in to the joint . For leaking cracks , drill the injection holes in a zig-zag pattern around the crack to make sure that the injection hole intersects the crack. In order to inject resin into the crack, it is necessary to install injection ports (packers). The diameter of the average injection hole shall be 13mm depending on the packer used. Packers are supplied in several diameters and lengths. The angle while drilling should be approximately 45° or less to the surface and towards the crack. Drill at 45 angle in to the crack or joint. Ideally the injection hole should intersect the joint or crack half way through the thickness of the wall or slab



The depth of the drill hole intersecting the crack should be somewhere close to the middle of structure, if possible. Holes deeper than 30 cm are usually not required even if the concrete being repaired is more than 100cm thick. Holes should always be staggered from one side of the crack to the other. The recommendable number of hole is four in 100cm. This assures a higher percentage of holes intersecting the crack, even if the angle of the crack within the concrete is not perpendicular to the surface. No two cracks behave just alike. In some instances a crack will fill from just a few injection packers. The distance of the drilled holes to each other usually varies from approximately 15cm to 25cm according to the width of the crack. The wider the crack, the further apart are the drill holes

STEP 3- Fixing the Packer

Blow the dust out of the injection hole with a probe that reaches the back of the hole . Fix a packer of the right diameter in to the injection hole Place packers in the previously drilled hole, so that the top of the rubber sleeve is below the concrete surface. If the packer can't be pushed into the hole, tap it in. Tighten the packer with a wrench as tight as necessary.

STEP 4- Flush the crack

In some circumstances, it can be very useful to flush the crack with water to improve the subsequent penetration of the PU resin into thicker walls. Flushing helps to detect blind holes, or lost continuity of a crack.

STEP 5- PU Resin injection

When all preparation work is completed, make sure the injection pump is in a good working order. Load the resin hopper and charge the pump, hose, and gun. Open the valve on the gun, and allow all remaining solvent to pass while watching for the resin to appear. Catch all surplus material and solvent in a waste container. Start slowly injecting the crack, holding the pressure line allows the operator to feel the pump pulsations.

If the resin continuous to flow freely out of the crack, stops pumping and apply a surface seal over the crack with rapid setting cement or place absorbent materials. Proceed pumping until the resin has traveled from a packer to the next , and is oozing out slowly on the visible side of the crack. Once you are assured that the resin has reached the next injection packer, shut- off resin flow, disconnect your pressure line and proceed to the next packer. Some cases need to be re-inject up to three times. Continue in this fashion until the crack is completely filled.

STEP 6- Cleaning and service

Once the injection work is completed, a good and thorough cleanup is essential. The packers can be removed within 24 hours and the holes should be patched. If desired, an electric grinder can be used to remove excess cured grout that flowed out the crack.

Packing and Storage

Standard 4 L & 10 L Cans /Pails . Store materials between 40°-90°F with careful handling to prevent damage to products. If conditions exceed these ranges, special consideration in storage must be taken. Do not store at high temperatures in direct sunlight. Shelf life under normal conditions in closed container will be 12 months.

Health and Safety

Non Hazardous ; if ingested seek medical advice

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