



TURBO-SEAL U

SINGLE COMPONENT WATERPROOFING INJECTION MATERIAL

INJECTION LEAK REPAIR SYSTEMS

Polymer Rubber Gel Injection & Rewaterproofing Material

<u>KEY FEATURES</u>	<u>BENEFITS</u>	<u>APPLICATIONS</u>
<ul style="list-style-type: none"> • Adhesive in wet conditions, active water leaks, and on surfaces with foreign materials • Partial bentonite composition • Remains as a flexible gel. Durable to vibration and continuous movement. • One component. No mixing of chemicals, easy to apply, safe, easily stored and transported. • High solids content, solvent free, made from recycled materials. • Durable. Chemically resistant, resistant to freeze/thaw cycling, dry/wet cycling. 	<ul style="list-style-type: none"> • Ease of application and effectiveness. • Seeks out leaks and stops them. • Waterproofing is maintained. No loss of adhesion or separation. • Cost-effective, reduce labor, save time, fewer mistakes in application. • Non-toxic, non-flammable. Safe application. • Effective in many different types of environments. 	<p>Underground Structures: <i>Tunnels, Underground Garages, Water Tanks, Septic Tanks, Concrete Reinforced Levies, Subway Tunnels</i></p> <p>Areas of Application: <i>Shrinkage Cracks, Moving Joints, Pipe Penetrations, Settlement Cracks, Construction Joints, Joints in Precast Concrete, Segments, Expansion Joints</i></p>

DESCRIPTION: Turbo-Seal U is a single component, highly elastomeric polymer rubber gel infused with special adhesives. Turbo-Seal U is used to repair water leaks in below grade structures. Due to its superior flexibility, adhesiveness and self-sealing characteristics, Turbo-Seal U is ideally suited for repairing and restoring damaged waterproofing membrane systems. Turbo-Seal U is applied by rotor/stator injection pump.

USES: Turbo-Seal U is injected into leaking areas after drilling to the damaged waterproofing layer restoring its integrity. Turbo-Seal U is applied in any below grade structure. Turbo-Seal U can be applied to areas with high volume active water leakage or minimal water leakage. Preventative sealing is also applicable.

PACKAGING: Turbo-Seal U is packaged in 5.2 gallon (20 liter) buckets.

YIELD: 2.25 ft²/gallon at 7/10" wet thickness – 4.00 ft²/gallon at 2/5" wet thickness
Coverage may vary with the application technique used. Actual coverage and thickness used depends on the size of the void behind the structure and the porosity of the structure.

TRANSPORTATION: Turbo-Seal U is classified as a DOT non-hazardous material.

SHELF LIFE: Indefinite, when stored according to recommended storage guidelines.

STORAGE: Store in unopened containers in clean, dry conditions at 40 to 80° F.

HEALTH AND SAFETY: Avoid contact with skin and eyes. Wear suitable gloves and safety glasses. See SDS.

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KINGFIELD CONSTRUCTION PRODUCTS – 20 NORTH 4TH STREET, SUITE 300, MINNEAPOLIS, MINNESOTA 55401

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TECHNICAL DATA COMPOSITION: Turbo-Seal U is a polymer rubber gel infused with special adhesives.

TESTING: ASTM D1353-03, ASTM D2202-00, ASTM D5329-04, ASTM D56-05, ASTM D36-00, ASTM D2196-99, CGSB 37.5-M89

TYPICAL PROPERTIES	
PROPERTY	VALUE
pH	7.5 – 8.0
Specific Gravity	1.1 – 1.3
Freezing Point Below	-25°F
Softening Below	30°F
Physical State	Liquid
Appearance	Black
Viscosity	150,000 cP*
	3,600,000 cP**
Flash Point	> 200°F

*Pump/Application Mixed Condition **Static surface condition

TEST DATA: TURBO-SEAL U		
PROPERTY	RESULTS	TEST METHOD
Solids Content	75%	ASTM D1353
Flow	113 ± 4mm	ASTM D2202
Penetration, in mm	28 ± 0.8mm	ASTM D5329 sec. 6
Flash Point	No observable flash point	ASTM D56
Toughness	1.64 ± 0.15 lbs	CGSB 37.50 – M89
Elongation	14.93 ± 1.82 inches	CGSB 37.50 – M89
Energy to Break	11.70 ± 1.08 in-lbs	CGSB 37.50 – M89
Adhesion	Rating of 1 (Excellent)	CGSB 37.50 – M89
Softening	Below 30°C	ASTM D36
Viscosity	150,000 cP* ; 3,600,000 cp**	ASTM D2196
Water Absorption	Gain 7 ± 3.2 gr.	CGSB 37.50 – M89
Low Temperature Flexibility	No cracks	CGSB 37.50 – M89
pH	7.71	

Results shown are not intended as performance criteria for on-site installed material

*Pump/Application Mixed Condition **Static Surface Condition

HOW TO APPLY TURBO-SEAL U

EQUIPMENT: Turbo-Seal U should be applied with a rotor stator pump. For most applications, use an injection pipe with an outer diameter of 5/8". A hammer drill will be sufficient for most applications.

PREPARATION: Check the thickness of the concrete. Drill 5/8" diameter holes to the waterproofing layer at 3.25' intervals. Install the injection packers. For most applications, an injection pipe with an outer diameter of 5/8" and a packer are used to make an injection opening and inspection holes at 3.25' intervals.

INJECTION: Inject Turbo-Seal U slowly at low pressure and continue injecting until counter flow from other drilled holes is seen. Remove the injection pipe from the drilled hole that Turbo-Seal U has counter flowed through. Fill the hole with non-woven cloth and polymer mortar. If multiple locations have been drilled, repeat process as necessary. Some applications may require an initial application of polyurethane or other material to fill excessive voids.

CLEAN UP: Dab excess Turbo-Seal U off the pump with a cloth. Additional cleaning can be done with a citrus based cleaner.

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