



MEGA INJECT PU 509

**TWO-COMPONENT, LOW VISCOSITY
POLYURETHANE RESINS THAT FOAM
WHEN COMBINED WITH MOISTURE**

PRODUCT DESCRIPTION

Mega Inject PU-509 Polyurethane Foam Injection Resins are two-component, low viscosity polyurethane resins that foam when combined with moisture. Mega Inject PU-509 are VOC compliant and do not contain solvents. Mega Inject PU-509 Part-A is a hydrophobic polyurethane liquid while Mega Inject PU-509 Part-B is hydrophilic polyurethane. Mega Inject PU509 Part-A will cure, but will not produce foam without moisture. Mega Inject PU-509 Part-B requires moisture to foam and cure. One of the dual component cartridges are packaged with the required amount of water.

USES

Mega Inject PU-509 Polyurethane Injection Foams are designed to stop water infiltration and exfiltration through concrete by sealing moving non-structural cracks. Polyurethane Injection Foams are typically used to stop water leaks through cracked or honeycombed concrete, voids where floors and walls join, cold joints and pipe intrusions. Typical uses include residential and industrial basements, tunnels, manholes, parking decks and where concrete requires non-structural sealing to prevent water leaks. Both Injection Foams cure as tough foam capable of withstanding expansion and contractions associated with thermal cycles and crack movement. If a structural crack repair is required refer to Mega Sealers complete line of epoxy crack injection products.



FEATURES & BENEFITS

- Both products are usable at low pumping pressures of 20 to 40 psi on moist or dry surfaces.
- Mega Inject PU-509 Part-B has been retarded so the foaming process does not occur until the material has been fully injected into a crack.
- Elongation properties of both products allow the injection of moving cracks without causing stress on the concrete and potential parallel cracking.
- Mega Inject PU-509 Part-A uses the moisture in wet cracks to aid the curing process.
- Both products foam in the presence of water. Product 8193 will expand 30 times its original volume. Mega Inject PU-509 Part-B will expand 5 times.
- Mega Inject PU-509 Part-A requires less than 2% water for reaction.

PHYSICAL PROPERTIES

	Product Part-A	Product Part-B
Bond Strength		150-300 PSI
Tensile Elongation		400%
ASTM D 3574-88		
Tensile Elongation	45%	
ASTM D 1623		
Tensile Strength		380 PSI
ASTM D 3574-86		
Tensile Strength	31 PSI	
ASTM D 1623		
Shrinkage	0%	<5%
Water Absorption	<1%	
Shear Strength	34 PSI	12-14 PS
ASTM D 273		
Density (Core)	Free Rise	
ASTM D	2.02 Lbs/CuFt	10 Lbs/CuFt
Solids	100%	100%
Viscosity	100-200	100-200
	CPS	CPS
Color	Amber	Amber

TYPICAL PHYSICAL PROPERTIES

- Do not apply on ice or frost covered surfaces.
- Do not use to structurally repair concrete cracks.
- Use Water-Chem Injection Foams only in their designated temperature and void width ranges for best results.
- If temperatures are falling below 77oF (25oC), preheat the injection resin to 70oF (20oC) before mixing components together.
- If temperatures are below freezing, preheat resin to 90oF (32oC) for quicker setting and cure.

COMPLIANCE

Mega Inject PU-509 meets VOC regulations and are formulated TDI free.

SURFACE PREPARATION

Clean the surface of the crack to sound concrete. Remove all dust, efflorescence, unsound concrete and other contaminants that would be detrimental to the adhesion of the temporary or permanent seal. Concrete that has not been painted or previously treated with other materials need only be wire brushed and vacuumed.

TEMPERATURE GUIDELINE

Cartridges require no pre-blending. For best results, cartridge temperature should be between 65°F and 95°F.

PREPARATION

1. Hold cartridge in an upright position with retaining nut on top.
2. Remove retaining nut and two D-shaped plugs (do not discard).
3. Remove back-flow restrictor and place over cartridge opening.
4. Place retaining nut over mixing nozzle.
5. Place mixing nozzle with retaining nut over threaded top opening on cartridge and tighten.
6. Place cartridge in dispensing tool with cartridge throat flanges inserted into the dispensing tool slot (do not misalign).
7. Pump a portion of polyurethane (1 ounce) until proper mixing is achieved. Do not use polyurethane that is not blended.
8. Unmixed polyurethane may be saved by removing mixing nozzle and replacing 2 D-shaped plugs and retaining nut. Store in an upright position.
9. Discard used mixing nozzle. A new mixing nozzle will be required for future use.

CRACK REPAIR

1. Space injection entry tees/ports slightly less distance apart than the concrete thickness; i.e., 8" thick concrete would require a 7¼" to 7½" spacing on center between the tees.
2. Place tee over crack and apply surface sealer over tee/port and crack opening between tees/ports. Completely cover the base of the entry tees/ports and open crack to prevent leaking.
3. Pump desired quantity onto a piece of cardboard; mix only as much as can be applied in 5 minutes. Surface sealer must be tack-free before injection
4. Crack Injection Process for Dry Cracks:
 - Flush the crack with water to remove debris and to prime the crack for the chemical foaming action to occur. This is critical if Mega Inject PU-509 Part-A is used. Flushing is not necessary for the chemical reaction with Mega Inject PU-509 Part-B as it has water packaged as part of the cartridge.
 - The lowest entry tee/port on vertical or grade applications should always be injected first. Pump until clean injection liquid has passed from the next closest tee/port.
 - Plug original (first) tee/port. Begin pumping into the next adjacent tee/port (second tee/port from the bottom) until the third tee/port has passed clean injection resin. Plug the second tee/port. Move to next location and continue this pattern of pumping until all tees/ports have been injected. Then try and re-pump each entry tee/port a second time to insure the crack has been completely filled with Injection Foam.

- Apply steady pressure on the cartridge dispensing tool, letting the spring-loaded device move the injection resin into the crack. Too much pressure can cause leaks and blowouts. Crack injection requires patience.
- 5. Removal of the tee and surface sealer is optional after the polyurethane has cured. If Bonder or Super Rapid Surface Sealer was used as the surface sealer, they will require grinding to remove. Surface Seal may be substantially removed using a hammer and chisel. Thermal Peel may be removed by just peeling. Wear appropriate eye protection when removing any surface sealers.



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CLEAN UP

Polyurethane materials are difficult to remove when set. Clean tools and equipment before the material.

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Local Restrictions

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the product uses.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Mega Sealers products, are given in good faith based on Mega Sealer's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Mega Sealer's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Mega Sealers reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

In case of any query or technical assistance, please feel free to contact us on following numbers mentioned below. Our dedicated customer support team will be happy to assist you.



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