



**POLYGEM**  
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## LCR™ – Epoxy Injection Resin | AVAILABLE IN LOW AND HIGH VISCOSITY FORMULAS

Manufactured by Polygem, 5600 Lower Macungie Rd. | Macungie, PA 18062 | 630-231-5600 | Made in USA

TB – TECHNICAL BULLETIN

### PRODUCT DESCRIPTION

**LCR™ Epoxy Injection Resin** is a 100% solids, two-component, moisture insensitive epoxy designed to permanently restore structure and design strength to cracked concrete structures. Unique wetting properties allow maximum penetration of LCR into cracks above .005". LCR liquid concrete repair injection epoxy can be used on wet or dry surfaces, as well as underwater.

### ADVANTAGES

- **100% Solids**
- **No VOCs**
- **No Solvents**
- **Chemical Resistant**
- **Restores Structural Strength**
- **Excellent Adhesion**  
To Concrete, Wood, Fiberglass, & Metal Surfaces

### RECOMMENDED USES

**LCR RESIN** permanently repairs cracks in many concrete surfaces or forms.

- **Basement Foundations**
- **Industrial Warehouses**
- **Residential Flooring**
- **Patios, Sidewalks & Balconies**
- **Parking Decks**
- **Reservoirs & Tank Repair**
- **Pool Leak Repair**

### SURFACE PREPARATION

Surface must be dry, and free of all contaminants before proceeding. Remove all loose or flaking concrete with a wire brush. Dirt, grease and flaking paint must also be removed prior to application.

### APPLICATION INSTRUCTIONS

#### WEAR GLOVES & EYE PROTECTION

1. Detailed instructions for mixing the cartridge can be found on or in the packaging that came with the cartridge(s). Follow those instructions then proceed to step 2.

**Note:** When repairing a wall, crack must be temporarily sealed with LCR Epoxy Repair Paste and injection ports properly mounted. See the technical data sheet for LCR Epoxy repair paste or the instructions that come with the paste for more information on sealing a crack and mounting ports.

2. Once fully mixed, screw the threaded nozzle onto the cartridge and load the cartridge into a standard caulking gun to dispense.
3. When dispensing, make sure to do so with a slow & even pressure. Pay attention to how the resin is flowing into the crack or repair surface making sure it is penetrating the concrete and not overflowing onto the surface.

**Note:** Mixed resin will begin to harden within 30 minutes and cannot be saved for later. Resin must be injected within 30 minutes of having been mixed.

4. Once repair has been made and the crack has been fully injected if there is any unused resin left in the cartridge, back off pressure on the caulking gun, remove cartridge, and allow it to solidify before disposing of the cartridge.
5. Clean up any uncured epoxy with isopropyl alcohol or acetone.

### PACKAGING

**LCR RESIN** comes in **10 fl. oz. single caulk style cartridges** available in low, high, and extra high viscosity formulas.

### SHELF LIFE

Factory sealed containers of this product are guaranteed to be of first quality for a minimum of 24 months.

### LIMITATIONS

Not for use on contaminated or oily surfaces.

**DO NOT** install when surface temperature is below 40°F (4°C) or above 90°F (32°C).

During damp and/or cool conditions LCR Resin will cure slower. **DO NOT** put repaired concrete into service until fully cured.

### TECHNICAL DATA

**All values measured after 7 days at 73°F (23°C).**

#### TYPICAL PROPERTIES

<b>Pot Life:</b> (100 gms) .....	55 min.
ASTM D-2471	
<b>Working Time:</b> (73°F - 23°C) .....	30 min.
<b>Thin Film Set Time:</b> (73°F - 23°C) .....	2-3 hrs.
<b>Full Cure Time:</b> .....	24 hrs.
<b>Compressive Strength:</b> .....	7,908 psi
ASTM D-695	
<b>Compressive Modulus:</b> .....	135 ksi
ASTM D-695	
<b>Tensile Strength:</b> .....	5,868 psi
ASTM D-698	
<b>Flexural Modulus:</b> .....	270 ksi
ASTM D-790	
<b>Flexural Strength:</b> .....	948 psi
ASTM D-790	
<b>Elongation at Break:</b> .....	2.73%
ASTM D-638	
<b>Shrinkage:</b> .....	0.001 in./in.
<b>Heat Deflection Temp:</b> (at 66 psi) .....	120 °F (49 °C)
<b>Shore D Hardness:</b> .....	80D
ASTM D2240	
<b>Viscosity:</b> .....	
<b>Low Viscosity Cartridge (LV):</b> .....	580 cps.
<b>High Viscosity Cartridge (HV):</b> .....	1,910 cps.