



TECHNICAL DATA SHEET

DURALCRETE® LV

Low Viscosity Epoxy Injection Resin and Binder

03930

CONCRETE REHABILITATION
CONCRETE

1. **DESCRIPTION:** DURALCRETE LV is a low viscosity, two part, 100% solids, low odor, 2:1 mix ratio, moisture insensitive epoxy resin compound.

FEATURES AND BENEFITS

- *High Strength*
- *Provides Load Transfer*
- *Virtually No Odor*
- *2:1 Mix Ratio*
- *Tenacious Bond*
- *Moisture Insensitive*
- *Deep Penetration*

APPLICATIONS

- *Concrete Crack Injection*
- *Gravity Feed Horizontal Crack Repair*
- *Vertical Anchor Bolt Grouting*
- *Binder for Horizontal Concrete Repairs*

2. **COMPLIANCE:** DURALCRETE LV meets or exceeds the following standards:

ASTM C881-90, Type I & IV
Grade 1, Class B & C

3. **SURFACE PREPARATION: Concrete:** The surface must be structurally sound, dry, free of grease, oils, coatings, dust, curing compounds and other contaminants. Surface laitance must be removed. The preferred method of surface preparation is abrasive blasting or other mechanical means. Oil contaminated surfaces should be degreased. Remove defective concrete, honeycombs, cavities, joint cracks, voids and other defects by routing to sound material. Following surface preparation, the cleaned surface should pull concrete when tested with a pull tester, or an elcometer (ASTM D4541).

Steel: All oils, greases, dirt, old coatings and chemical contaminants must be removed. The surface should be blasted to a near white metal finish (SSPC SP10) using clean dry aggregate.

4. **MIXING INSTRUCTIONS:** Premix Part A and B with a slow speed motor and "Jiffy" mixer. Pour two parts by volume of Part A and one part by volume of Part B into a clean, dry container and mechanically mix for 3-5 minutes. Scrape the sides and bottom of mixing

container while mixing. Do not whip or aerate while mixing. **DURALCRETE LV Mortar:** Gradually add clean, dry 20/40 mesh silica sand to mixed binder. Blend thoroughly. The mix ratio of aggregate to binder is approximately 4:1 by volume but may vary depending upon the desired consistency of the mortar.

MATERIAL PROPERTIES

75°F

Color (Mixed)	Clear Amber
Solids, %	100
Mixing Ratio (Parts A:B) by volume	2:1
Gel Time, mins	40-45
Viscosity, cps	300-500
Compressive Strength (ASTM D695), psi	
1 Day (neat resin),	8,600
7 Days (neat resin),	11,200
Compressive Modulus (ASTM D695), psi	
7 Days (neat resin)	265,000
Compressive Strength (ASTM C109), psi	
7 Days (mortar)	10,300
Tensile Properties (ASTM D638)	
Ultimate Strength @ 14 days, psi	7,125
Elongation at break, %	2.3
Modulus, psi	286,000
Bond Strength (ASTM C882), psi	
Hardened to Hardened Concrete	
2 Days (moist cure)	2,150
14 Days (moist cure)	2,550
14 Days (dry cure)	2,825
Heat Deflection Temp. (ASTM D648)	126°F
Water Absorption (ASTM D570)	
7 day, 24 hour immersion, %	0.34

Data presented are typical laboratory values.

5. **APPLICATION TECHNIQUES:** Application and surface temperatures should be at least 45°F and rising.

Horizontal Patching: Prime surface with neat DURALCRETE LV. Trowel the DURALCRETE LV mortar into the prepared surface before the prime coat becomes tack free.

Bonding anchor bolts, dowels, pins: DURALCRETE LV can be used neat or with an aggregate to anchor vertical bolts. The anchor bolt hole should be free of all

TAMMS INDUSTRIES
FEBRUARY 2003 (Replaces 3/02)

TAMMS INDUSTRIES
FEBRUARY 2003 (Replaces 3/02)

CONCRETE REHABILITATION
CONCRETE

03930

debris before grouting. The optimum hole size is 1/8" annular space or 1/4" larger diameter than bar diameter. Depth of embedment is typically 10-15 times bolt diameter

Pressure Grouting: A) Vertical Cracks – Install injection ports at appropriate intervals using DURALCRETE GEL or DURAL FAST SET EPOXY. Seal the surface of the crack with DURALCRETE GEL or DURAL FAST SET EPOXY. Pump DURALCRETE LV into the crack with two component pressure injection equipment, starting at the bottom of the crack and working up. Cracks should be clean and dry prior to injection. B) Horizontal Cracks – “Vee-cut” cracks and ensure that prepared crack is dry and free of all debris. Pressure injection technique is the same as for Vertical Cracks. If gravity feeding, pump DURALCRETE LV until cracks are filled.

6. **COVERAGE:** For anchoring, 1 neat gal yields 231 cu.in. of grout. One gallon of DURALCRETE LV mixed with four gallons of dry 20/40 mesh silica sand will yield approximately 0.45 cu. Ft. of mortar. Coverage will vary depending on surface texture, porosity and temperature.
7. **CLEAN-UP INSTRUCTIONS:** Clean tools and application equipment immediately after use with methyl ethyl ketone, or xylene. Clean overspray or drips while still wet with solvent. Dried DURALCRETE LV will require mechanical abrasion for removal.
8. **CAUTIONS:** DURALCRETE LV is not intended for use on moving (active) cracks. Do not use on cracks greater than 1/4" width. This product is not intended for use on cracks subjected to water under hydrostatic pressure at time of injection. Do not thin with solvents. Concrete should be cured for 28 days.
9. **PACKAGING:** 3 gallon case, 15 gal unit.
Storage: 50°-90°F (10°-32.2°C), protected from moisture.
Shelf Life: 2 years, unopened, proper storage.

10. ENVIRONMENTAL SAFETY PRECAUTIONS

(Industrial Use Only): Component “A”: Contains epoxy resin. Vapors can cause respiratory irritation. Skin and eye irritant. Can cause sensitization after prolonged or repeated exposure. Use of safety goggles and chemical resistant gloves is recommended. Use only with adequate ventilation.

Component “B”: Is corrosive. Contains amines. Contact with eyes or skin may cause severe burns. Can cause sensitization after prolonged or repeated use. Use of safety goggles and chemical resistant gloves is highly recommended. Use only with adequate ventilation.

First Aid: In case of skin contact, wash immediately and thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Consult physician immediately. For respiratory problems, remove person to fresh air.

Disposal: Collect with absorbent material. Dispose of in accordance with current local, state and federal regulations.

11. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES
3835 State Route 72, Kirkland IL 60146
800-862-2667; FAX: 815-522-3257
www.tamms.com

12. **WARRANTIES:** Seller warrants that the Products do not infringe upon any copyright, patent, or trademark or trade secret, nor violate the proprietary information rights of any third party. Seller warrants that its Products will conform to and perform in accordance with the Products’ specifications. THE FOREGOING WARRANTIES, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. LIMITATION ON LIABILITIES: Because of the difficulty of ascertaining and measuring damages hereunder, it is agreed that, except for claims for bodily injury. Seller’s liability to the Buyer or any third party, for any losses or damages, whether direct or otherwise, arising out of the purchase of Product from Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the Product hereunder. **IN NO EVENT WILL SELLER BE LIABLE FOR ANY LOSS OF PROFITS OR OTHER SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.**