



DURALCRETE®
Dual Cartridge Kits
High Modulus Epoxy Bonding Adhesive

DESCRIPTION: DURALCRETE is a multi-purpose, 2 component, 100% solids, moisture tolerant epoxy resin compound for load bearing applications.

FEATURES AND BENEFITS

- High Strength
High Modulus
Provides Load Transfer
Virtually No Odor
1:1 Mix Ratio
Outstanding Adhesion to Concrete
Medium Viscosity

APPLICATIONS

- Vertical Anchor Bolt, Dowel Bar & Re-Bar Adhesive
Hardened Concrete to Hardened Concrete Adhesive

COMPLIANCE: DURALCRETE meets or exceeds the following standards:

- ASTM C881-90, Type I, II, IV & V
Grade 2, Class B & C
AASHTO M-235

SURFACE PREPARATION: Concrete must be clean, dry and structurally sound. The substrate must also be free of curing compounds, form release agents and any other contaminants. Surface laitance must be removed. The preferred method of surface preparation is abrasive blasting or other mechanical means. After cleaning, remove defective concrete, honeycombs, cavities, joint crack voids and other defects by routing to sound material. For grouting applications, ensure that the hole is free of any debris or standing water. Steel must be free of oils, greases, dirt, old coatings or chemical contaminants. Surfaces should be blasted to a white metal finish using clean dry aggregate.

MIXING INSTRUCTIONS: Place the dual component cartridge kit in a dual plunger manual or powered dispensing gun and remove end caps from both sides of the cartridge. Attach a static mixer nozzle using the

MATERIAL PROPERTIES
75°F
Color, Part A Lt. Gray
Color, Part B Tan
Color (Mixed) Lt. Gray
Solids, % 100
Mixing Ratio (Parts A:B) by volume 1:1
Pot Life, (2 gal unit), mins 15-25
Gel Time, mins 30
Viscosity (Mixed), cps 40-80,000
Compressive Strength (ASTM D695), psi
1 Day (neat resin) 8,000
7 Days (neat resin) 10,500
Compressive Modulus 330,000
Compressive Strength (ASTM C109), psi
7 Days (mortar) 11,000
Tensile Properties (ASTM D638)
Ultimate Strength @ 14 days, psi 7,200
Elongation at break, % 2.5
Modulus, psi 439,782
Bond Strength (ASTM C882), psi
Hardened to Hardened Concrete
2 Day (moist cure) 2075
14 Days (moist cure) 2385
14 Days (dry cure) 3100
Fresh Concrete to Hardened Concrete
2 Day (moist cure) 2015
14 Day (moist cure) 2465
Heat Deflection Temp.(ASTM D648) 124°F
Linear Coefficient of Shrinkage 0.003
Water Absorption (ASTM D570)
7 day, 24 hour immersion, % 0.23
Flexural Properties (ASTM D790), psi
Strength, 14 days 5,700
Tangent Modulus 1x10^6
Data presented are typical laboratory values.

reusable threaded retaining nut. Keep cartridge upright until use. Bleed off any air inside cartridge by slightly squeezing handle. Dispense the resins by working the trigger of the gun. Dispense and discard into a waste container a small amount (2 to 4 trigger pulls) to start the material mixing. Proceed with application. Do not point mixer upward after material is flowing. To stop dispensing, release pressure by pressing the lever on the gun and pulling back the plungers. When application is complete remove the used static mixer

03930
CONCRETE REHABILITATION
CONCRETE

TAMMS INDUSTRIES

TAMMS INDUSTRIES

CONCRETE REHABILITATION
CONCRETE
03930

and dispose of properly. Bleed off a few drops of material to clear away any mixed product. Clean the threaded area and openings and replace the end caps on the cartridge. Loosely replace the locking nut.

**APPLICATION TECHNIQUES:** Application and surface temperatures should be at least 40°F and rising.

**Bonding anchor bolts, dowels, pins:** DURALCRETE can be used to anchor vertical bolts. The anchor bolt hole should be free of all debris before grouting. Fill the hole with enough material so that when the bolt is inserted excess material will come to the surface. Push the bolt into the hole using a twisting motion to ensure there are no air voids in the hole. Support the anchor in the hole until the grout has cured sufficiently.

**Bonding hardened to hardened concrete:** Apply mixed DURALCRETE by spatula, brush or trowel. Ensure the surfaces to be joined have uniform coatings of DURALCRETE. For optimum results the bond line should not exceed 1/8 inch. Join surfaces and hold or clamp firmly until adhesive gels. Ideally a small amount of adhesive should exude from the joint. Surfaces must be mated while the adhesive is still tacky.

**COVERAGE:** Coverage rates are approximate and for estimating purposes only. Surface temperature, porosity, anchors, hole size variations, and texture will determine actual material requirements.

For anchoring, one 22 oz dual cartridge kit will fill a void of 39.7 cubic inches; one 53 oz dual cartridge kit will fill a void of approximately 95.6 cubic inches.

For bonding hardened to hardened concrete, coverage of one 22 oz dual cartridge is about 4.4 square feet at 1/16 inches. Coverage of one 53 oz cartridge will be about 10.5 square feet at 1/16 inches.

**CLEAN-UP INSTRUCTIONS:** Clean tools and application equipment immediately after use with methyl ethyl ketone, or xylene. Clean drips while still wet with solvent. Dried DURALCRETE will require mechanical abrasion for removal.

**PACKAGING:** DURALCRETE is available in 22 oz (600 ml) and 53 oz (1,500 ml) dual component cartridges.

**Storage:** 50° to 90°F (10° - 32.2°C), protected from moisture.

**Shelf Life:** 2 years, unopened, proper storage.

#### **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.

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

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

**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.