



DURACRETE™

Durable Bonding, Trowelable, Patch and Repair Mortar

MANUFACTURER

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PRODUCT DESCRIPTION

DURACRETE is a single component, polymer-reinforced, high-strength, cement-based patching and resurfacing mortar. **DURACRETE** has been designed to repair, slope or level structurally sound, interior and exterior concrete surfaces that are pitted, worn, scaled or spalled. In addition, this product can be sculpted to repair concrete members and deep voids. When properly applied, **DURACRETE** will produce a strong, durable, well bonded surface of tooled texture.

L&M has found that polymer-reinforced patching materials which more closely match their compressive strength with the strength of the concrete substrate adhere better and last longer. With modern polymer technology, L&M's **DURACRETE** is *strength matched* with most concrete substrates, and at the same time provides an improved abrasion resistance and weather resistance.

Basic Use: The excellent workability, wear resistance and polymer-reinforced bond strength of **DURACRETE** make it ideal for patch repairs of existing concrete, such as commercial warehouse and industrial floors, sidewalks, stairwalls, curbs and gutters, driveways, concrete parking decks, and plant floors. Additional uses of **DURACRETE** include stamped concrete overlays and decorative finishes, in conjunction with integral or topically applied colors. **DURACRETE** is available in two color formulations: 1) standard concrete gray, for normal applications and 2) white, to be used as a base for colored toppings and overlays.

FEATURES & BENEFITS

- *May be placed as a mortar or an overlay.*
- *Excellent abrasion resistance.*
- *Excellent bond strength.*
- *Strength matched for longer life.*
- *Add color for decorative finish.*
- *May be mixed with coarse aggregate.*

ESTIMATING

DURACRETE is packaged in 50 lb. (22.7 kg) bags or resealable plastic pails. Yields approximately 0.44 ft³ (13

liters). Coverage estimate is 45 sq.ft at 1/8 in. (4.5 m² at 3 mm) thickness. Available in two colors: gray or white.

TECHNICAL DATA

Applicable Standards: ASTM-C 387

Physical properties:

All tests performed at 72°F (22°C). All data based on typical performance.

Consistency	Highly flowable
Working Time.....	20 min
Set time, ASTM C-191	Initial..... 1 hr
	Final
	3 hrs
Compressive Strength	1 day..... 1,000 (7)
ASTM C-109	3 days
Modified (MPa)	7 days
	28 days
	5,000 (34)
Weathering.....	Excellent
Reduction in Water Absorption (Rilem).....	20-50%
Abrasion Resistance, ASTM C 944	Excellent

INSTALLATION

Surface Preparation: Remove loose and deteriorated concrete. Remove rust and scale from rebar in accordance with ICRI guideline number 03730. Surface to receive **DURACRETE** must be clean of oil, paint, curing and sealing compounds, dirt and laitance. Profile the surface to a medium texture (Ref. CSP 5 or greater, ICRI 03732). Power wash with water to remove all dust and soak surface prior to placement. Before placing mortar remove standing water leaving a saturated surface-dry (SSD) condition. Repair all cracks before installing **DURACRETE**. Rout out non-moving cracks, presoak, and fill with flowable **DURACRETE** mortar.

Bonding Slurry for Deep Spalls: Prime damp surface to be repaired with a liquid slurry bond coat using **DURACRETE** powder mixed with 4 1/2 quarts (4.3 liters) of water per bag just before the placement of **DURACRETE** mortar. Uniformly apply bonding slurry with a stiff broom. Broom out puddles. Do not allow slurry bond coat to dry out before installing **DURACRETE**. Re-prime areas that dry before installation. Estimated coverage per bag for slurry coat is 50 ft².

MIXING WATER REQUIREMENTS : When used as a large area overlay, mix with approximately 4 quarts (3.8 liters) of potable water per 50 pounds (22.7 kg). When **DURACRETE** is being used as a small area patch (curb and gutters, pot holes, etc.) reduce total water slightly to attain a trowelable or stiff consistency. Do not dry pack. Do not use less than 2 3/4 (2.5 liters) quarts of water per bag.

MIXING: On small area repairs, mix with a variable-speed electric drill fitted with a paddle or “jiffy” mixer. On larger installations, use a properly vented, gas powered, paddle-type mortar mixer. When mixing to overlay consistency, place 3/4 of specified water into an empty container and then, while mixing, slowly add all **DURACRETE** powder. Mix a few minutes and then add the remaining water to attain desired placement consistency. Continue mixing for a total of 5 minutes. Do not mix more than can be placed in 20 minutes.

ADDING COLOR: Integral color mixtures may be added to white **DURACRETE** with success. Consult L&M or your pigment supplier for recommended dosage.

PLACING: Immediately place material onto damp, freshly-primed surface to be repaired. Level and screed to elevation or slope desired. Do not re-temper. **DURACRETE** may be placed at depths of near feather edge to 3" (75 mm) . When placing **DURACRETE** in depths of over 3" in small area repairs, up to 50% by weight, 3/8-inch (10 mm) pea gravel may be added per bag. Allow to set and stiffen for a few minutes and then finish or texture as desired. In hot, windy weather, use L&M evaporation retarder, **E-CON**, to reduce temperature and wind-induced cracking (plastic shrinkage cracks).

Finish top coat: For a more uniform appearance on spalled exterior concrete driveways, pavements and walkways, allow installed **DURACRETE** mortar used on deep repairs to cure a minimum of 4 hours. Then apply a final finish top coat of **DURACRETE** mixed at a flowable consistency (4-1/2 qts per bag) over the entire area with a soft bristle broom, producing a uniform color and desired texture. Allow to cure overnight before subjecting to traffic.

Curing: Under most conditions, **DURACRETE** is self-curing. To protect installation from high winds, heat or sun, use **L&M E-CON** or cover with plastic. **Do not water cure.** Allow **DURACRETE** to harden before applying decorative sealing compounds.

Crack and Joint Repair: Extend all joints through the total thickness of the overlay system. Use expansion joint material where necessary and saw cut to full depth as required. Over time, moving cracks in the substrate concrete will continue through the **DURACRETE** repair and may need additional protection.

FOR BEST RESULTS:

- **DURACRETE** is cement-based. Follow ICRI Guidelines for surface preparation and ACI recommended practices for placement.
- For placement do not use trowelable or stiff consistencies for large area overlayments.
- Do not mix more than can be placed within 20 minutes.
- Do not place over painted or sealed surfaces.

- Do not add any admixtures or accelerators.
- Not recommended to repair moving cracks.
- Do not add cement, sand or fine aggregate. Do not retemper.
- Do not overwork surface after initial placement.

PRECAUTIONS

Contains portland cement and silica sand. Freshly mixed cement is highly alkaline and may cause skin injury. Avoid creating and inhaling dust. Provide ventilation and respiratory protection. Wear skin and eye protection. Dust mask recommended.

Please refer to Product Material Safety Data Sheet (MSDS) before using.

STORAGE/SHELF LIFE

DURACRETE units are to be kept in a cool, dry storage to prevent water contamination. Shelf life is one year in unopened pails or bags when properly stored.

FAX ON DEMAND/WEBSITE

L&M's exclusive Fax On Demand and its convenient Internet website offer instant access to Tech Data Sheets, Material Safety Data Sheets, product updates, and other useful information. Simply dial 800-839-9887 or visit www.lmcc.com and follow the easy steps.

LIMITED WARRANTY

This product is warranted to be free of defects in material and workmanship, and conform to L&M Construction Chemicals (“L&M”) quality control standards. All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind, expressed or implied including but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose. Satisfactory results depend upon many factors beyond L&M's control. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from his or her direct use, indirect use or consequential to their own use of the product. L&M shall not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. L&M's sole responsibility shall be to replace that portion of the product which proves to be defective. Any warranty claim must be made within six (6) months from the date of the claimed breach. This limited warranty applies only if the product was properly installed and used according to all instructions and was properly stored prior to use.

For Professional Use Only..

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