

DURATHIN PATCH™

Trowelable, Thin Patch, Repair and Leveling Mortar

MANUFACTURER

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PRODUCT DESCRIPTION

DURATHIN is a single component, polymer-reinforced, high-strength, cement-based leveling and patching system. This non-shrink repair mortar has been specially formulated for horizontal and vertical repairs requiring a thin or feather-edged cross sections that will later be left exposed or covered with tile, carpet, and other flooring systems. **DURATHIN** has an integral polymer bonding system and in most applications will not require an externally applied bonding agent.

When properly applied **DURATHIN** will produce a strong, durable, well bonded surface of desired texture. **DURATHIN** has been engineered to level low spots and other shallow areas on interior floors made of concrete found in warehouses, commercial buildings, schools, stairwalls and industrial plant floors. Repairs using **DURATHIN** may be made without the use of special equipment or primers.

Basic Use: The excellent workability, wear resistance and polymer-reinforced bond strength of **L&M DURATHIN** make it ideal for patch repairs in areas that require a very thin yet durable repair material. **DURATHIN** is excellent for the repair of old and new concrete, such as commercial and industrial floors, as well as newly cast concrete members. Precasters and prestressers have found **DURATHIN** an invaluable tool for repairing bugholes and breakouts.

FEATURES & BENEFITS

- Feather-edge performance.
- Easy to place.
- Mixes with water only.
- Abrasion resistant.
- Rapid strength gain.

ESTIMATING

DURATHIN is available in 50 lb. (22.7 kg) multi-walled bags that yield 0.41 ft³ (12L). Applied at the following

thicknesses, one bag of **DURATHIN PATCH** will cover approximately:

1/8 inch (3mm)	38 ft ² (3.6m ²)
1/4 inch (6 mm)	9 ft ² (1.8m ²)
1/2 inch (12 mm)	9 ft ² (.9m ²)
1 inch (25 mm)	4.5 ft ² (.45m ²)

TECHNICAL DATA

Applicable Standards:

ASTM-C 387

Physical Properties at 72°F (22°C)

Data based on typical performance.

Consistency	Plastic/Flowable
Working Time,.....	30 min
Set Time, Initial.....	1 hr.
ASTM-C-191 Final	3 hrs.

Compressive Strength,

ASTM C-109	1 day	1500 (10)
psi (MPa)	3 day	4000 (28)
	28 day	5500 (38)

INSTALLATION

Surface Preparation: Prepare surface in accordance with ICRI Technical Guideline No. 03732. For best results the concrete surface over which **DURATHIN** is to be placed should have a rough profile, exposing at least the top portion of the coarse aggregate. Pre-soak all surfaces with water for a minimum of two hours. At the time of placement the surface should be saturated and damp, without standing water present (saturated surface-dry, SSD).

If **DURATHIN** is to be placed over a smooth or hard troweled concrete surface, apply **L&M EVERBOND** to improve bond. **DURATHIN** should not be placed over surfaces that have a curing and sealing compound, paint or other interfering coatings intact.

The edges of patches subjected to high vehicular traffic should be saw cut to a depth of 1/4 inch or protected with a topping.

Mixing water requirements:

Approximate water requirements for trowelable consistency:

3 1/2 to 4 qts/50 lb bag (3.3-3.8 L/22.7 kg bag)

Mixing: Do not hand mix. For best results use gas operated mortar mixer for large projects or a minimum 1/2 inch, slow speed drill fitted with a mixing paddle when



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small batches of patching material are required. First, place the required water into the mixer and then add dry **DURATHIN** with the mixer operating. When using a mortar mixer, mix for 3 to 5 minutes or until a uniform consistency is achieved. When mixing small quantities, mix for approximately 2 minutes or until uniform consistency is achieved. Mixing with a trowel by cutting on a board is not recommended. Mix only enough patch that can be placed within 30 minutes.

Placing: In prepared area, immediately place from one side to the other. Work firmly into bottom and sides of void to remove air and assure proper bond. On large areas, use a level and screed to obtain desired elevation before troweling. Minimal finishing is required. Do not re-temper. Do not overwork the surface.

DURATHIN has been designed as a patching material that can be both feather edged and placed up to 3 inches (75 mm) thick, with only the addition of water.

Joint Placement: Joints in the base concrete and the **DURATHIN** repair must coincide. Joints placed in the **DURATHIN** must pass through the full thickness of the product and into the base concrete at the depth and spacing required by ACI 302.

Cold weather: The surface to which **DURATHIN** is applied must be 40°F (5°C) and rising. **DURATHIN** must be protected from freezing for the first three days after placement. When the air temperature is below 55°F (12°C), mixing water heated to not greater than 100°F (38°C) may be used to warm the **DURATHIN**. Do not use accelerators or anti-freeze.

Hot weather: The temperature of the surface to which **DURATHIN** is applied must not be greater than 105°F (40°C). Pre-soak concrete with water to cool down substrate and to prevent flash set of **DURATHIN**. When the air temperature is greater than 80°F (25°C) cool water may be used to cool the **DURATHIN**.

Curing: Under most conditions, **DURATHIN** is self-curing. Occasionally it may be necessary to cover with wet burlap or plastic sheeting to protect the freshly placed **DURATHIN** from the stresses of premature moisture loss due to high winds, heat or sun.

FOR BEST RESULTS:

DURATHIN is cement-based. Follow ACI recommended practices. Perform surface preparation in compliance with ICRI Technical Guideline No. 03732 for overlays. Do not place over painted or sealed surfaces. Do not add any additives or accelerators. Not recommended for overhead installation. Prime smooth concrete surfaces with **L&M EVERBOND** to improve bond. Maximum thickness is 3 inches per application.

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

DURATHIN bags are to be kept in dry storage to prevent water contamination. Shelf life is a minimum of one year in unopened bags when properly stored.

FAX ON DEMAND/WEBSITE

L&M's exclusive Fax On Demand and its convenient internet website offer instant access to Technical 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.

SHORT SPEC

03730: Concrete Rehabilitation: cement-based, repair mortar, allowing thin or feather edged cross sections. "**DURATHIN PATCH**" by L&M Construction Chemicals, Inc.

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 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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