

DURAPATCH VOH

Polymer Reinforced, Non-Sag, Concrete Repair Mortar

MANUFACTURER

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PRODUCT DESCRIPTION

DURAPATCH VOH is a pre-measured cement-based thixotropic mortar system consisting of polymers, low density aggregates and additives for easy-to-use vertical and overhead patch repairs. This product resists damage from mechanical impact and abrasion, environmental and freeze-thaw deterioration and chemical destruction from mild acids, caustic solutions and other chemical contaminants.

DURAPATCH VOH, with its mini-micron particles, assures positive penetration into the smallest capillaries to double normal bonding planes. This unique benefit guarantees a denser mix, excellent bond, and increased flexural strength, resulting in a more durable patch.

Basic Use: **DURAPATCH VOH** is ideal for patching overhead and hard-to-reach vertical patch areas. Use on parking ramps, overpasses, tunnels, pass-throughs, and where structural and environmental stability are critical.

This patch can also be used for renovating existing commercial and residential structures to correct uneven structural irregularities. It can be applied at reduced thickness and can be modified to meet tolerances at stairwells, elevators, etc. The non-shrink, non-staining and high strength features of **DURAPATCH VOH** assure a concrete repair that is structurally sound and aesthetically pleasing. This product's excellent workability, durability and strength make it ideal for repairing old and new concrete.

FEATURES & BENEFITS

- *Permanent repair.*
- *Fast curing.*
- *Strength matched.*
- *Excellent bond.*

ESTIMATING

DURAPATCH VOH is available in 50 lb. (22.7 kilogram) bags.

Coverage: One bag yields approximately 0.47 cubic foot (13 liter) or 10 square feet at ½ inch (13 mm) thick.

TECHNICAL DATA

Applicable Standards: ASTM - C 928

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

Working Time	40 minutes
Initial Set Time, ASTM-C 191	60 minutes
Compressive Strength	
ASTM-C 109	1 day 2000 (13)
psi (MPa)	7 days 5500 (36)
	28 days 7000 (47)

Flexural Strength, ASTM-C78	
	28 days 1100 (7)

Bond Strength, ASTM-C 882	
	28 days 2900 (19)

INSTALLATION

Surface Preparation: Prepare surface in accordance with ICRI Technical Guidelines. Abrade smooth surfaces to 1/8 to 1/4 inch (3-5 mm) (Ref: CSP 5, ICRI 03732) to assure bond.

Remove all unsound concrete not bonded to the rebar down to 3/4" (20 mm) below the rebar. Remove rust and scale from the rebar. Flush with water to remove all dust. Soak surfaces with water prior to placement.

Equipment: Do not hand mix. Have proper measuring containers, tools and adequate labor to place the patch. For best results, use a gas operated, paddle type mortar mixer or a continuous type mixer. For small batches, use a ½ inch slow speed drill fitted with a mixing paddle.

Mixing and Mixing order: Locate the mixer close to the repair area. Pour clean water into mixer. Use 3 1/2 - 4 1/4 quarts (3.3 - 4.0 L) of water per bag depending on consistency desired. Add powdered **DURAPATCH VOH**, slowly mix for a minimum of 4 minutes, until uniform in consistency and lump free. Adjustments should be made to produce a workable mix. Place immediately.

Placing: In prepared area immediately scrub product into substrate from one side to the other. Work firmly into bottom and sides of void to remove air and assure proper bond. Smooth out to a featheredge where necessary. Place in maximum lifts of 1/2 inch (12mm). Where multiple lifts are required, score top surface of each lift to produce a roughened surface for next lift. Saturate surface of each lift with clean water. Allow prior lift to take final set before reapplication. Slightly overfill the patch, and following initial set shave or shape the **DURAPATCH VOH** to fit the elevation of existing or previous concrete.



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Cold weather: Cold temperatures extend work time and setting. For best results in conditions below 45°F (2°C), heat the concrete substrate, water and **DURAPATCH VOH** bags. Do not use accelerators or anti-freeze. Cold temperatures extend work time and set time.

Hot weather: In conditions over 85°F (30°C) use cold water and keep patch cool to extend working time.

Curing: Proper curing of **DURAPATCH VOH** will improve long-term performance and minimize shrinkage and cracking. Protect from moisture loss, high winds, heat of the sun and extremes in temperatures that could cause rapid drying.

FOR BEST RESULTS:

DURAPATCH VOH is cement-based. Follow ACI recommended practices. Do not add cement, accelerators or anti-freeze. Do not retemper. Do not add sand or fine aggregate.

Prepare surface in accordance with ICRI Technical Guidelines. Surfaces to be repaired must be clean and sound. Soak surfaces with water prior to placement.

Condition material at 65°F to 75°F before using. Place in maximum ½ inch (12 mm) lifts. Placement can be up to 2 inches (50mm).

Use mechanical mixer to avoid lumps. Do not hand mix.

PRECAUTIONS

Contains portland cement. 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

DURAPATCH VOH 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 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.

SHORT SPEC

03730: Concrete Rehabilitation: Non-sag, cement-based, concrete repair mortar, minimum 7000 psi in 28 days. "**DURAPATCH VOH**" 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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