

Guide to Concrete Construction Chemicals



Products for the Construction, Repair, and Protection of Concrete





Concrete Curing Compounds

L&M Cure R and R2: Water borne, ready-to-use, clear resin based membrane curing compounds. The membrane forming ability of **L&M Cure R** is designed to retain sufficient moisture to properly hydrate concrete placements. Available in clear and white pigmented formulations. **COMPLIANCE:** ASTM-C-309 Type 1 and Type 2

L&M Cure W and W2: Water-borne, VOC compliant, ready-to-use wax based curing compounds. **L&M Cure W/W2** are not recommended for floors scheduled to receive subsequent treatments or toppings. Available in Clear and white pigmented formulations. **COMPLIANCE:** ASTM-C-309; AASHTO-M-148, Type 1 and Type 2



Curing and Sealing Compounds

Lumiseal FX: L&M's blush resistant, non-yellowing, decorative acrylic curing and sealing compound. Recommended for interior and exterior decorative and colored concrete placements. Formulated with advanced water based, low VOC emulsion chemistry. Sprayable, low odor, resists blushing and blistering. ASTM C 309. Type 1.

Lumiseal Plus: A 100% non-yellowing, very high gloss, pure acrylic cure and sealing compound. Popular sealer for colored, patterned and stamped concrete. **COMPLIANCE:** ASTM-C-309; ASTM-C-1315. VOC most states. Available in solvent and water based formulas.

Dress & Seal: Cures, seals and dustproofs concrete surfaces, effectively sealing out job site dirt, oil, and mortar drippings. Allows proper bonding of resilient tiles. Resists yellowing. Easy to apply. **COMPLIANCE:** ASTM-C-309, Type 1; ASTM-C-1315, Grade B. VOC most states.

Dress & Seal WB: General purpose water based acrylic blend cure, sealer, VOC compliant. **Dress & Seal WB** effectively cures, seals and dustproofs concrete and assists in proper strength development. Resists yellowing. Very low odor. Easy to apply. Available in high solids formulation, **Dress & Seal WB 30**.

COMPLIANCE: **Dress & Seal WB:** ASTM C-309; **Dress & Seal WB 30:** ASTM 309; ASTM-C1315. VOC all states.



Evaporation Reducer

E-Con: On fresh concrete, **E-Con** prevents premature and rapid loss of moisture from the concrete surface. **E-Con** effectively minimizes the negative effects of rapid drying conditions due to high temperatures, low humidity, high winds, and direct sunlight.



Form Treatments

Debond Form Coating: L&M's high-performance, chemical release agent eliminates concrete buildup from all types of forms, in all types of weather. Excellent for wood, aluminum, and steel forms. VOC compliant, **Debond** forms a water-resistant barrier, greatly reducing form maintenance and concrete surface holes). Low odor **Debond** contains no diesel fuel or fuel oil, highly refined raw materials. Reduces concrete build-up and defects.

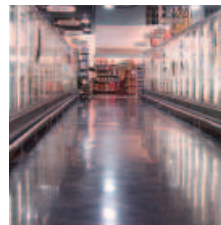


Non-Shrink Grouts

Crystex: Our "top of the line" precision, non-shrink structural grout. Extended placement time. Designed for critical grout applications under vibrating machinery and in applications where high flow, non-shrink performance is needed. Conforms to ASTM C-1107 at all temperatures and flow ranges.

Duragrout: Cement-based, general use construction grout. Ideal for column base plates, anchor bolts, small equipment, and grouting concrete wall penetrations. Conforms to ASTM C-1107 at a plastic and flowable consistency.

EpogROUT 758: Epoxy resin grout cures at normal temperatures into a tough, non-shrinking, structural grout of high chemical resistance. **EpogROUT 758** is scientifically formulated to withstand severe dynamic load shock in marine and heavy-duty industrial applications.



Dry Polished Concrete

FGS Hardener Plus: Chemical hardener and densifier solution formulated to increase wear resistance and surface durability of polished concrete floors. The essential component of the **FGS/PermaShine** Polished Concrete floor system.

FGS Conditioner: Proprietary concrete cleaner and conditioner designed for ongoing maintenance of hardened, polished concrete floors. Highly concentrated, and specially formulated component of the **FGS/PermaShine** Polished Concrete floor system. Regular use reinforces surface durability and improves floor appearance.



Vivid Dye: L&M's premier line of concrete dyes. Formulated using extremely fine molecules of color designed to penetrate and color any interior concrete surface. Recommended for use with the **FGS/PermaShine** polished concrete floor system. Can also be used as a base color or touch up for acid stained concrete or as a coloring agent itself. Available in many attractive colors in VOC compliant solvent or water based formulas.



Liquid Chemical Hardeners and Densifiers



Seal Hard: L&M's top-of-the-line, new generation concrete chemical hardener, densifier, dustproofer, and sealer. **Seal Hard** hardens and seals the concrete near surface wear zone better than any product

in its class. **Seal Hard** is recommended for use on ACI Class 4, 5, and 9 (super flat) floors. USDA approved. Ten-year warranty against dusting available with certified applicator.

Chem Hard: Hardens and dustproofs concrete surfaces by chemical reaction. This sodium silicate penetrating treatment is odorless and economical. Five year warranty against dusting.

Flouhard: Premium concrete hardener and dustproofer contains magnesium and zinc fluosilicate solution with an anionic surfactant for deep penetration and 100% chemical action. Five-year warranty against dusting.



Dry Shake Floor Hardeners and Toppings

Emerytop 400: The most durable floor system available. **Emerytop 400** is a flowable, heavy duty emery topping for ACI Class 6 and 7 industrial floors. **Emerytop 400** produces a concrete floor surface that gives longer service life than normal high strength concrete, iron, or trap rock toppings.

Emeryplate FF: The industry's ultimate dry shake for industrial floors requiring additional abrasion resistance and impact protection. **Emeryplate FF** is engineered to be able to spread onto a newly placed, highly plastic slab, yet still achieve a flat floor. Rust-free performance is ideal for wet conditions.

Quartzplate FF: Ready mixed, 98% pure quartz silica aggregate, dry-shake hardener that increases floor surface durability from four to five times over normal concrete. Contains graded aggregates and proprietary admixtures that allow this product to be broadcast onto a highly plastic slab to achieve a flat floor. Colors and light reflective formulations are available.

Grip It and Grip It AO: Emery and aluminum oxide aggregates. Designed to produce a non-slip concrete surface by broadcast application onto freshly placed concrete.



Joint Protection and Crack Repair

Joint Tite 750: L&M's fast-setting, polyurea joint filler that protects interior saw cuts, control joints, and random concrete floor cracks subjected to heavy loads and high volume of forklift traffic from edge spalling and deterioration.

Epoflex SL: The self-leveling epoxy joint compound specifically designed to protect interior horizontal, non-moving control joints. Prevents joint edge spalling and reduces costly control joint maintenance.



Patch and Repair Products

Duracrete: Single component, polymer-reinforced, high-strength, cement-based patching and repair mortar. **Duracrete** has been designed to repair, slope, or level structurally sound concrete surfaces that are pitted, worn, scaled, or spalled. Effective for interior and exterior applications. When properly applied, **Duracrete** will produce a strong, durable, well-bonded surface of desired texture.

Durapatch Hiway: L&M's cement-based, very rapid hardening patching system develops quick, high strengths. Is non-shrink and provides excellent bonding qualities in both flowable and no-slump consistencies. Recommended in application depths of 1" or more.

Durapatch Industrial: A versatile, polymer modified, cement-based mortar with extended working time for easy placement. This extremely durable repair material provides excellent bond, resistance to corrosion, very low permeability, and high compressive strengths. Can be placed in interior spalls of 1/8" or greater.

Fastrak: High-strength, cement-based concrete and masonry patching compounds. For up to 30 minutes, **Fastrak** may be shaved or shaped to conform to surrounding surface contour. **Fastrak** produces a concrete repair that is structurally sound and visually pleasing.

Levelex: L&M's self-leveling, cement-based underlayment is easy to place and easy to cover. Its rapid set characteristics allow a fast return of the floor to traffic. Recommended for repair depths from featheredge to 2".



Repellents and Surface Protection

Aquapel and Aquapel Plus: Protect horizontal concrete from the damaging effects of water and road salts. Aquapel products are water-based silane/siloxane treatments that are odorless, non-flammable, and VOC compliant. One coat recommended for most applications. Long lasting, penetrating. **COMPLIANCE:** NCHRP 244; ASTM-C-672; ASTM-E-514

Hydroblock: The most effective water repellent treatment for vertical concrete masonry block and other very porous surfaces. Formulated scientifically with the latest generation of water-based, VOC compliant, active ingredients, **Hydroblock** is an effective long-term treatment for difficult to seal concrete block and split face concrete masonry. **COMPLIANCE:** ASTM-E-514

Hydropel WB: L&M's newest generation of water-based, VOC-compliant water repellent. This reactive silane and siloxane blend penetrates surfaces to form an invisible, long lasting, water-repellent barrier. Odorless and easy to apply. **Hydropel WB** is recommended for dense and moderately porous vertical masonry and concrete substrates.

PermaGuard SPS: The penetrating stain protector designed specifically to help protect polished concrete floors from water, petroleum, and stains. Formulated with low odor, low VOC polymers, and repellent ingredients to protect and beautify polished concrete floors. Enhances durability and ease of maintenance.

Petrotex: Ready to use, quick drying, low-VOC, water-based solution. Contain a proprietary blend of silane, siloxane, and fluoro-polymers. **Petrotex** penetrates and effectively treats polished commercial and industrial concrete floors, concrete pavements, and driveways to resist penetration and damaging effects of water and petroleum spills.



The History of L&M Construction Chemicals, Inc.

L&M Construction Chemicals, Inc. was founded in 1961 by Lawrence E. "Larry" Schwietz in Omaha, Nebraska. Larry's courage, tenacity, and vision saw L&M through its lean, early years.

In 1962, the first public L&M office was opened in the lower level of a multi-story tire warehouse/construction supply house in Omaha. The rent—one barrel of *Debond* a month. Today, L&M fully utilizes packaging plants and warehouses, and an international distribution system. Yet, the company continues to live out Larry Schwietz's original vision.

L&M began with a single product, *Debond Form Coating*. *Debond's* popularity established L&M's international distribution structure.

The 1975 development of *Crystex* non-shrink grout was a major breakthrough in precision, structural grouts. It is the benchmark for precision grouts.

L&M understands the construction industry's need to improve the long term durability and appearance of concrete. We developed and offer a number of excellent concrete surface hardeners and densifiers. These include our popular *Seal Hard*, *Quartzplate* and *Emery* aggregate hardeners and toppings, as well as salt resistant, water repellents, such as *Aquapel*.

L&M is at the cutting edge of concrete chemistry and market trends. Most recently, *FGS/PermaShine* offers a complete, patented polished concrete system that transformed the acceptance of concrete as a desirable floor finish. Polished concrete delivers beauty, safety, maintenance savings, and environmental stewardship.

L&M's manufacturing facility, tucked into the northern hills of Omaha, includes an administrative center and laboratory. Company chemists continually test, innovate, and develop materials to meet the demands of the marketplace. A large and growing onsite production facility provides product mixing, packaging and storage facilities. L&M has regional packaging plants in Pennsylvania and Oregon. Additional storage and distribution facilities are also strategically placed in other parts of the United States and Latin America.

Larry's eldest son, Greg Schwietz, became L&M's president in 1993. Greg brought twenty years of sales and marketing experience with L&M to his role.

Today, the family-owned firm combines a wide product mix with an international system of distribution. L&M's focus is on education and training. Sales representatives are selected for technical knowledge, professionalism, and dedication to customer service.

Quality, innovation, and integrity are more than mere words at L&M. They frame a philosophy which has propelled the firm into its leadership position. This philosophy guides L&M as it moves forward towards continued growth in an industry that is helping to improve the way people live and work around the world.

L&M Construction Chemicals and its employees are active members and supporters of the following professional organizations:

- U.S. Green Building Council (USGBC)
- National Floor Safety Institute (NFSI)
- American Concrete International (ACI)
- Construction Specifications Institute (CSI)
- American Society of Concrete Contractors (ASCC)
- American Standards and Testing Methods (ASTM)



The American Institute of Architects

(AIA), under its Continuing Education System (CES), has recognized L&M Construction Chemicals as a registered Passport Provider. L&M now has AIA/CES registered programs available on concrete and related subjects. Each

of these classroom programs is designed to inform and educate the novice and experienced user/specifier about concrete and its properties. Under the provisions of the AIA /CES these programs are accredited based on contact hours.

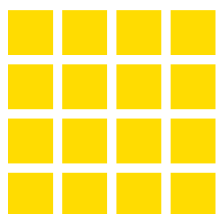
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L&M

Construction Chemicals, Inc.

Toll Free 800-362-3331 • Worldwide 402-453-6600

14851 Calhoun Rd. • Omaha, NE USA 68152

E-Mail: info@lmcc.com

www.lmcc.com