

FAST PATCH®

Revision: September 2011
Supersedes all previous publications



Product Description

LAMBCO® FAST PATCH is a rapid setting concrete patching compound packaged as a dry powder requiring only the addition of clean potable water or Lambert's liquid acrylic resin concrete admixture. LAMBCO® FAST PATCH is a blend of the following raw materials: portland cements that provide early high strengths, specially selected aggregates for hardness qualities, additives to control the rate of set, plus a dry form of acrylic resin modifier that increases the cohesiveness and bond strength of LAMBCO® FAST PATCH. This unique blend of raw materials provides superior product workability, a fast set time, and eliminates the shrinkage stress at the glue line of concrete repairs, which is one of the main reasons for failure of concrete repairs.

LAMBCO® FAST PATCH is designed for quick patch and repair work having an initial set time of 5 minutes and a final set time of 10 minutes. It is the ideal product for restoring disintegrated or broken concrete areas both old and new.

LAMBCO® FAST PATCH is used to repair many types of construction faults in both precast and cast-in-place concrete construction. It is used where fast setting cement is required for quick repairs. The repairing of pre-stress panels, concrete pipe, culverts, beams, catch basins, and concrete floors are a few of the many uses for LAMBCO® FAST PATCH.

Installation

Before using this product, please refer to the Material Safety Data Sheet for additional information. Proper handling precautions MUST be followed. The conditions of use, handling, and application of this product and information (whether verbal or written), including any suggested formulations and recommendations, are beyond Lambert Corporation's control. Therefore, it is imperative that testing be performed to determine satisfaction and suitability for intended use and health, safety, and environmental issues. The following information is meant as a guideline of best industry practices. While Lambert Corporation does suggest adherence to these guidelines, unforeseeable variables and/or developed successful installer practices may cause variation in methods and/or results.

Surface Preparation

Improper surface preparation can result in less than acceptable LAMBCO® FAST PATCH performance. It is very easy to blame adhesion problems that occur on the patching material being applied when poor surface preparation is really where the fault lies. Concrete substrates should be cured properly and structurally sound. To ensure proper adhesion, the surface must be thoroughly cleaned of all dirt, dust, grease, oil, wax, release agents, curing and sealing compounds, loose, "punky" concrete or anything else that would interfere with the normal concrete bond or the chemical action bonding of cementitious products. Concrete removal and substrate preparation should provide a minimum depth of 1/4-inch (6.4 mm) for best repairs.

Where hard trowelled, glassy smooth concrete is encountered, it is recommended that the surface be scarified, acid etched, or sandblasted, then thoroughly rinsed with clean water. Surface should have a profile of miniature ridges and valleys that give concrete "teeth" to form a successful bond. Concrete substrates to be repaired must be pre-dampened but no standing water should remain. Insufficient moisture at the bond or glue line can result in failure.

When bonding onto steel or other metal surfaces remove all scale, rust, and paint and place wire laths around metal surface. Remove any loose or weak concrete.

Priming Concrete Surfaces

Moisten substrate with clean water using brush or fine spray. Allow substrate to absorb moisture for several hours with several applications if possible. This procedure will prevent dry porous concrete from absorbing or wicking water out of the patch mixture prior to its final set thus causing bond failure, shrinkage cracking, or a soft "punky" LAMBCO® FAST PATCH. The application of Lambert's liquid acrylic resin concrete admixture as a coating to the substrate and in the mix in place of water will enhance bond and strength qualities while also reducing porosity at the glue line.

Mixing and Placement

Mix a 50 lb (22.7kg) unit LAMBCO® FAST PATCH with 3.5 quarts (3.3L) of potable water or Lambert's liquid acrylic resin concrete admixture. Always add dry powder to correct amount of liquid and mix to a workable consistency. CARE SHOULD BE TAKEN NOT TO MAKE MIXTURE TO "SOUPY". Mixing of several containers at one time is discouraged because of fast set time. Use only clean, potable water for mixing. Lambert's liquid acrylic resin concrete admixture (applied as a glue line-bonding agent on the substrate and in the mix in place of water) is recommended with LAMBCO® FAST PATCH to increase bond. Apply mixture to the prepared surface and trowel into place using enough pressure to force the LAMBCO® FAST PATCH into the concrete substrate. Force material against edge of repair, working toward center. After filling repair, consolidate, then screed. Finish with trowel until smooth and level with surrounding surface. DO NOT OVER TROWEL BEFORE INITIAL SET OR SPRINKLE WATER ON SURFACE TO AID IN FINISHING. Should mixture become stiff, dip trowel in Lambert's liquid acrylic resin concrete admixture for easier working.

For repair depths greater than 2-inches (5.1 cm), LAMBCO® FAST PATCH can be modified with the addition of clean pea gravel to a maximum of 20 lbs (9.1kg) gravel to 50 lb (22.7kg) LAMBCO® FAST PATCH. Do not add additional water. For a smoother surface and higher strength, the upper layer of the deep cavity should be filled with un-extended LAMBCO® FAST PATCH.

Care should be exercised in finishing very thin toppings. It is impossible to produce a highly polished, finished surface without jeopardizing the strength of the bond or glue line in thin topping repairs. Excessive steel troweling will cause more than normal surface bleeding and shrinkage. This surface bleed water is usually drawn from the glue line causing a dehydration of the glue line resulting in possible bond failure. In thin toppings, wood floating only, immediately after screeding will produce maximum bond and minimum shrinkage. Resort to steel troweling only when absolutely necessary. Any steel troweling should be very light with a minimum number of passes.

Packaging:

50-lb (22.7kg)
PAIL

50-lb (22.7kg)
Bags

RESURFACE REPAIR
VERTICLE / OVERHEAD

LAMBCO® FAST PATCH

MASTER FORMAT: 03 01 30 . 72



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In hot weather applications, substrates should be protected from direct sunlight and wind. Frequent misting of the substrate with water will significantly lower its temperature prior to application. After installation of LAMBCO® FAST PATCH apply Lambert's water-based dissipating curing compound or mist with water for 12-24 hours to make sure proper cement hydration is achieved. This is especially important with applications less than 1/2-inch (1.3cm). Cracks in the material may reappear due to prior structural faults in the construction itself.

Do not retemper or add other cement or additives. Do not use LAMBCO® FAST PATCH on an area where the temperature is or will be below 50°F (10°C). During cold weather, it is suggested to store product at room temperature for 24 hours before application.

Limitations

During periods where the temperature is or will be above 100°F (37.8°C) within 24 hours of application, patching repairs should be undertaken with caution because of potential rapid water loss in the LAMBCO® FAST PATCH material creating a bond failure. In general, LAMBCO® FAST PATCH should not be applied to a hot substrate, in hot direct sunlight, or in high wind areas without paying proper attention to the problem of rapid mixing water loss.

Concrete removal and substrate preparation should provide a minimum depth of 1/4-inch (6.4mm) for best repairs. LAMBCO® FAST PATCH can be used in thin applications when Lambert's liquid acrylic resin concrete admixture is added to the mix in place of water. It is recommended that featheredges be avoided and saw cutting or chipping to a minimum depth of 1/4-inch (6.4mm) be done. IN HIGH TRAFFIC AND HEAVY LOADING REPAIR AREAS, THE SIDES OF THE REPAIR CAVITY SHOULD BE SQUARED OR UNDERCUT TO A MINIMUM DEPTH OF 2-inches (50 mm).

Never apply where efflorescence is present on the concrete surface. Efflorescence is a white soluble surface salt that breaks down the bond of any cement-based product. Lambert Corporation strongly suggests applying test samples under job conditions to be sure you get the results your job requires.

Crack Repair

Cracks should be dug out or saw cut and widened for best results (minimum 1/4-inch (6.4 mm) wide and 1-inch (25.4mm) deep). If this is impossible or undesirable, fill the depths with a flowable consistency of LAMBCO® FAST PATCH. Top the surface of the crack with a compacted layer of no slump LAMBCO® FAST PATCH mixed with Lambert's liquid acrylic resin concrete admixture.

Curing

Curing is essential to achieve maximum strength. Fog or damp cure with water in hot and windy weather. Do not allow water to pond. A compatible Lambert membrane cure may be applied after final set has taken place. Contact Lambert for compatible product details.

Technical Data

Chemical Resistance

Compressive Strength	2" cubes ASTM C-109
1 Day	4080 PSI (28.1 MPa)
3 Days	4250 PSI (29.3 MPa)
8 Days	6480 PSI (44.7 MPa)

Color: Concrete Gray

SET-TIME (ASTM C-191)

- 15 minutes initial set*
- 30 minutes final set*

*LAMBCO® FAST PATCH will vary in set time when temperatures vary. Cold temperatures slow set time, hot temperatures speed up the set-time.

Coverage

- 100 lbs (45.4kg) will yield 1 cubic foot (0.03m³) mixed material
- 50 lb (22.7kg) unit will cover:
 - 25 ft² (2.3 m²) @ 1/4-inch (6.4mm)
 - 12.5 ft² (1.2 m²) @ 1/2-inch (12.7mm)
 - 6.25 ft² (0.6 m²) @ 1-inch (25.4mm)

Clean-Up

Product can be cleaned up by sweeping, paying attention to minimizing the creation of excess dust.

First Aid

Avoid skin and eye contact. Safety goggles, rubber gloves, and the use of a NIOSH/MSA approved dust respirator are recommended. In case of skin contact, flush with water. For eyes, flush immediately with plenty of water for 15 minutes, and contact a physician. Wash clothing before re-use.

Cement powder or freshly mixed concrete, may cause skin injury. Avoid contact with skin and wash exposed skin areas promptly with water. If any cement powder or mixture gets into eyes, rinse immediately and repeatedly with water and get prompt medical attention. Product contains some silica sand which can cause SILICOSIS. Avoid over-exposure to the airborne dust. Practice good house-keeping. Any food, drink or chewing product should be protected from the dust.

KEEP OUT OF REACH OF CHILDREN.
FOR INDUSTRIAL USE ONLY.