

VINYL PATCH

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Supersedes all previous publications



Product Description

LAMBCO® VINYL PATCH is an all-purpose concrete patching compound packaged as a dry powder requiring only the addition of clean potable water or Lambert's liquid acrylic resin concrete admixture. It 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® VINYL 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® VINYL PATCH is designed for quick patch and repair work having an initial set time of 15-20 minutes and a final set time of 30-50 minutes. It is the ideal product for restoring disintegrated or broken concrete areas both old and new.

Basic Uses

LAMBCO® VINYL 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.

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® VINYL 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 (6.4mm) 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 a weakened bond.

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® VINYL 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-pound (22.7kg) unit **LAMBCO® VINYL 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 TOO "SOUPY"**. 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® VINYL PATCH** to increase bond on thin applications. Apply mixture to the prepared surface and trowel into place using enough pressure to force the **LAMBCO® VINYL 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® VINYL PATCH** can be modified with the addition of clean pea gravel to a maximum of 20 lbs (9.1 kg) per 50 lb (22.7kg). Do not add additional water. For a smoother surface and higher strength, the upper layer of the deep cavity should be filled with unextended **LAMBCO® VINYL 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) Bag
	50-lb (22.7kg) Pail



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® VINYL PATCH** apply Lambert's water-based dissipating membrane cure 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 (12.7mm). 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® VINYL 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.

Brush Coat Resurfacing

Dampen the concrete substrate with water prior to application. Coat surface of substrate with Lambert's liquid acrylic resin concrete admixture first. Make sure application is uniform. Add Lambert's liquid acrylic resin concrete admixture undiluted to **LAMBCO® VINYL PATCH** powder in place of water and mix to a thick paint consistency. Pour a quantity of the mixed resurfacing product onto the concrete substrate and spread with a wide, soft bristle push broom. Wet the broom with water before starting. Finish to a smooth surface. (Lambert's liquid acrylic resin concrete admixture coating must be tacky at time of application of mixed **LAMBCO® VINYL PATCH**).

Crack Repair

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

Curing

Curing is essential to achieve maximum strength. In hot and windy weather, fog or damp cure concrete with water. Do not allow water to pond. Lambert's compatible membrane-type cures may be applied after final set has taken place. Contact Lambert for compatible products and installation instructions.

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® VINYL PATCH** material creating a bond failure. In general, **LAMBCO® VINYL 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" (6.4 mm) for best repairs. **LAMBCO® VINYL 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 (6.4 mm) 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.

Technical Data

Compressive Strength	2" Cubes (ASTM C-109)
1 Day	1550 PSI (10.7 MPa)
3 Days	3680 PSI (25.3 MPa)
7 Days	4780 PSI (33.0 MPa)

Set Time	ASTM C-266
Initial Set	15-20 Minutes*
Final Set	30-50 Minutes*
* VINYL PATCH will vary in set time when substrate and air temperatures vary. Cold temperatures slow set time, hot temperatures speed up the set time. Increase in water content will also increase set times.	

Coverage

- 50 (22.7kg) unit yields 0.42 ft³ (0.012m³) – at 1/4-inch (6.4mm) thick coverage is 20 ft² (1.9m²)

Clean-Up

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 that can cause silicosis. Avoid over-exposure to the airborne dust. Practice good housekeeping. Any food, drink or chewing product should be protected from the 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.

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