



1. PRODUCT NAME

LAMBCO®
KOOL PLUG

**Hydraulic Cement
Non - Corrosive**

A ready mixed hydraulic cementitious repair compound that requires only the addition of clean water.

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

LAMBCO® KOOL PLUG is a dry powder product composed of a special type of hydraulic cement, silica sands, set accelerators and bonding boosters. When mixed to a thick consistency with clean water and hand formed into a plug, it will stop flow or leaks even under water. The set time is 3 to 4 minutes after being mixed with water. LAMBCO® KOOL PLUG is designed as a cementitious repair product that attains maximum strength rapidly. It is also designed to generate less heat than typical hydraulic repair products without sacrificing set time or compressive strength. Because LAMBCO® KOOL PLUG maintains its dimensional stability it ensures a tight/firm seal and bond that will not corrode or decompose. It is stronger and more durable than normal portland cement mixes and is more resistant to solutions of sulfates.

Advantages

- Controlled expansion.
- Lower heat generation.
- Non-toxic when cured.
- Easy to use, just add water.
- 3 to 4 minute set time.
- Non-shrink; locks into place.

Basic Uses

LAMBCO® KOOL PLUG is used for concrete repairs to active water leaks, hydrostatic pressure type water leaks, and underwater concrete repairs. This makes it ideal for basement, tunnel, elevator pit and sewer type repairs. It is also used for grouting/anchoring and sealing around bolts, conduits, and pipes. LAMBCO® KOOL PLUG is compatible with other portland cement based mixes and may be used as a set accelerator making many portland cement type mixes or mortars suitable for faster repair or anchoring. Test areas should always be applied when unfamiliarity of surface and/or product exists.

Limitations

Low temperatures will retard set time, high temperatures will accelerate set time. Use only clean potable water for mixing. Do not over mix or retemper after being mixed. Wear gloves when handling and mixing.

Never apply where efflorescence is present. Efflorescence is a white soluble surface salt that breaks down the bond of any cement-based product.

Not intended to be used as a load-bearing patching material, or for overhead or vertical anchoring. Apply test samples under job conditions to be sure you get the results your job requires.

4. TECHNICAL DATA

COMPRESSIVE STRENGTH	
2" CUBES ASTM C-39	
1 DAY	4273 - PSI
3 DAYS	4601 - PSI
7 DAYS	4513 - PSI
28 DAYS	6133 - PSI

5. INSTALLATION

Before using this product, please refer to the Material Safety Data Sheet for additional handling instructions. Proper handling precautions MUST be followed. The conditions of your use, job application of our product,

information (whether verbal or written) including any suggested recommendations are beyond our control, therefore it is imperative that you test our product and information to determine to your own satisfaction whether it is suitable for your intended use and application. This application and specific analysis at least must include testing to determine suitability from a technical as well as health, safety, and environmental standpoint.

Surface Preparation

Improper surface preparation can result in less than acceptable LAMBCO® KOOL PLUG performance. It is very easy to blame adhesion problems that occur on the LAMBCO® KOOL PLUG that is applied when poor surface preparation is really where the fault lies.

To ensure proper adhesion, the surface must be thoroughly cleaned of all dirt, dust, grease, oil, wax, and loose concrete. Depending on the surface to be treated, the following should be considered. Roughen surface area with wire brush, chisel, etc. Remove loose or weakened concrete or mortar. If crack is less than 3/4" (19.2 mm) in width or depth, widen or gouge to this dimension to allow enough material in the cavity for proper expansion, strength, and bonding of the plug. Inner portion of the crack should be undercut so the depth of the crack is wider than the surface opening. The creating of an inner cavity allows LAMBCO® KOOL PLUG to expand into the crack and resist high water pressure. If hole or crack is not leaking at the time of the repair, soak area for at least 15 minutes before installing LAMBCO® KOOL PLUG.

Mixing

Add clean water to small amount of LAMBCO® KOOL PLUG, mix and knead to the consistency of putty or thick mortar. Mixing time should not exceed 2 minutes. Prepare no more than can be used in 3 minutes. Warm water speeds set, cold water slows set. To further extend setting time mix with Type I Portland Cement. Do not add additional water or retemper once mixed.

Application

Surface should be damp. Once water has been added and plug material has attained a putty-like texture, shape to a form similar to the crack or cavity about to be repaired. At this point speed in working is essential. Wear gloves. After forming to a suitable shape, force material into the crack or cavity compressing it firmly using a gloved palm, trowel, wood block, etc. Hold in place 3 to 5 minutes until material hardens. For long vertical cracks, patch with successive small amounts of LAMBCO® KOOL PLUG starting at the top of the crack. If there is a strong water flow, put material on a board and hold in place for longer period (5 to 6 minutes). Do not brush or trowel over surface, shave off excess material with knife or similar tool. Roughen or scratch surface if a cement based product is to be later applied.

For anchoring bolts, posts, dowels, etc., drill hole deep enough and large enough to allow 1/2" (13 mm) to 1" (25 mm) clearance around fixture. Mix to putty consistency and fill hole, then tap fixture firmly into place. Keep damp until set, approximately 15 minutes.

When used for underwater repairs LAMBCO® KOOL PLUG must be mixed and formed above water line, then positioned under water line and held in position until set.

Curing

Keep surface damp while curing so that surface area will not crack. Mist with water 15 minutes to make sure proper cement hydration is achieved.

Clean Up

In case of spillage, sweep into appropriate container, and dispose of in accordance with applicable local regulations. Flush area with large amounts of water. Uncured material can be removed with water. Cured material can only be removed by mechanical methods.

6. COVERAGE

One pound (.45 kg) dry LAMBCO® KOOL PLUG mixed to a putty consistency with water will fill 17 cubic inches (280 cm³) or a crack 3/4" x 3/4" x 30" long (20 mm x 20 mm x 750 mm).

50 pound (22.7 kg) pail will yield 0.45 cubic feet (.013 m³).

7. PACKAGING

50 pound (22.7 kg) PAILS
10 pound (4.5 kg) PAILS (4 to case)

8. FIRST AID

Avoid skin and eye contact. Safety goggles, rubber gloves, and the use of a NIOSH/MSA approved dust respirator is 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.

**KEEP OUT OF REACH OF
CHILDREN
NOT FOR INTERNAL
CONSUMPTION**

LAMBCO® KOOL PLUG contains some silica sand which can cause Silicosis. Avoid overexposure to the airborne dust. Practice good housekeeping, protect food and drink.

**KEEP CONTAINER TIGHTLY
CLOSED.**

**FOR INDUSTRIAL USE ONLY.
CONSULT MATERIAL SAFETY
DATA SHEET FOR MORE
HANDLING INFORMATION.**

9. WARRANTY NOTICE

DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY: LAMBERT CORPORATION, (Seller) warrants that if any goods supplied prove defective in workmanship or material, that Seller shall replace them or refund their purchase price. THIS WARRANTY IS MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND/OR FITNESS WHICH ARE HEREBY DISCLAIMED. IT IS UNDERSTOOD AND AGREED THAT BUYER'S SOLE REMEDY, AND THEREFORE SELLER'S LIABILITY, WHETHER IN CONTRACT, TORT, UNDER ANY WARRANTY, IN NEGLIGENCE, OR

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10. PRODUCT LIABILITY

LAMBERT CORPORATION products are designed to be used in the construction industry and should be applied by competent persons in accordance with current published instructions. Technical advice and recommendations as to the suitability of product for any particular use are made in good faith. However, we have no control over the conditions under which our products are transported to, stored, handled or used by the customer. We cannot be held responsible for difficulty caused by other materials and conditions, or by inferior workmanship. LAMBERT recommends that the customer satisfy themselves as to the product's actual suitability for its intended purpose.

LAMBERT reserves the right to have the true cause of any difficulty determined by accepted test methods by an independent party. Any claim regarding product defect must be received in writing 1 year from day of shipment. No claim will be considered without such written notice or after the specified time interval.