

R3 REPAIR MORTAR™

© 2013 – Lambert Corporation
June 2013 Revision
Supersedes all previous publications



Product Description

LAMBCO® R3 REPAIR MORTAR is a one-component shrinkage-compensated very rapid-setting cement-based mortar. The addition of clean potable water is all that is needed. LAMBCO® R3 REPAIR MORTAR IS designed for horizontal concrete surface applications requiring high early-strength gains including, but not limited to, bridges, parking decks, industrial floors, or airport runways.

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

Concrete must be structurally sound and fully cured (28-days). Saw cut the perimeter of the area being patched into a square with a minimum depth of ¼-inch (6-mm). Remove all unsound concrete and roughen the surface to a minimum ¼-inch (6-mm). Remove all laitance, oil, grease, curing compounds, and other contaminants that may negatively affect the bonding capability of the LAMBCO® R3 REPAIR MORTAR. The concrete substrate should be saturated substrate-dry (SSD), free of all standing water, prior to application.

Mixing

A paddle type mixer or a revolving concrete mixer can be used. Use a container that will facilitate continuous placement. Place water into mixer before dry mortar. LAMBCO® R3 REPAIR MORTAR will require approximately 3-qts (2.8-liters) potable water per 50-lbs (22.7-kg) bag to achieve correct mixture. Blend for 4-minutes 30-seconds before placing material.

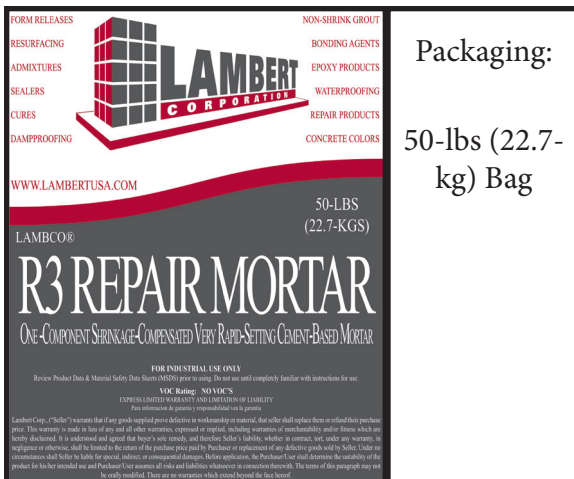
Application/Placement

Apply the mixed material onto the prepared saturated surface-dry (SSD) substrate by gloved-hand, trowel or screed. Ensure proper consolidation of the mortar and compaction around reinforcing steel. Minimum application thickness is ¼-inch (6-mm).

Finish the completed repair, as necessary, preventing overworking of the surface. A maximum of 15-minutes should be allowed to mix, place, and finish LAMBCO® R3 REPAIR MORTAR at 73°F (22.8°C).

Limitations

LAMBCO® R3 REPAIR MORTAR is cement based. Follow ACI recommended practices. Do not add cement, plasticizer or accelerator. Avoid placement when temperatures are, or will be below 45°F (7.2°C) within 24 hours. If it is placed with excess water or at low temperature, both the compressive strength and expansion properties may be adversely affected. For applications greater than 4-inches (10.2-cm) in depth, use 25 – 50-lbs (11.4 – 22.7-kg) of ¾-inch (10-mm) washed, graded, rounded, low absorption, high-density aggregate per 50-lb bag. Do not retemper after initial mixing.



Packaging:

50-lbs (22.7-kg) Bag



Technical Information

The following technical information was obtained using a water to non-extended LAMBCO® R3 REPAIR MORTAR ratio of 3-qts (2.8-liters) to 50-lbs (22.7-kg) at 73°F (22.8°C).

Flow (%) - ASTM C-1437	100	
Set Time (minutes) - ASTM C-191	Initial	15
	Final	21
Compressive Strength (psi) - ASTM C109	3-hours	>6,200
	24-hours	>8,000
	7-days	>11,000
	28-days	>12,000
Length Change (%) - ASTM C-157	28-days (Water-Cured)	0.038
	28-days (Air-Cured)	-0.060
	Difference between water-cured and air-cured	0.098
Bond Strength (psi) - FDOT FM 5-587	24-hours	>1900
	7-days	>2500

Coverage

One 50-lbs (22.7-kg) bag of LAMBCO® R3 REPAIR MORTAR will yield 0.46-ft³ (0.0128-m³) of mortar or cover 5.5-ft² @ 1-inch (0.5-m² @ 25-mm) thick.

Clean-Up

Product can be cleaned up by sweeping, paying attention to minimizing the creation of excess dust. Use water to clean tools and equipment immediately following application. Finished/cured product must be removed with mechanical means.

First Aid

Cement powder or freshly mixed concrete may cause skin injury. Avoid contact with skin and wash exposed skin areas promptly with soap and water. If any cement powder or mixture gets into eyes, rinse immediately and repeatedly with water and get prompt medical attention. Avoid overexposure to the airborne dust. If inhalation occurs, remove to fresh air area. If any discomfort or breathing issues occur, seek immediate medical attention. Refer to product Material Safety Data Sheet for further information.

U.S. State of California Proposition 65

This product contains material listed by the State of California as known, when treated improperly, to cause cancer, birth defects or other reproductive harm.

VOC Content

0 -g/L or 0-lbs/gal less exempt content

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