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RESEARCH REPORT: RR 25549-T
(CSI # 07120)

Expires: May 1, 2016
Issued Date: June 1, 2015
Code: 2014 LABC

GENERAL APPROVAL – Renewal – 1) Liquid Boot® 500 Spray Applied Membrane for Below-Grade Waterproofing and Gas Barrier. 2) Liquid Boot® 500 Plus Spray Applied Methane Barrier Membrane.

DETAILS

1. Liquid Boot® 500 membrane is a two component system of chloroprene modified asphaltic (CMA) emulsion. Both components are waterborne and are spray applied cold to provide a monolithic, single course, 60 mil minimum thickness membrane for below grade waterproofing and gas barrier.
For applications over dirt surfaces and mudslabs, the Liquid Boot® 500 is applied over a Liquid® Boot BaseFabric geotextile with seams overlapping minimum 6” and manually press bonded together using 20 mil Liquid Boot® 500.
2. Liquid Boot® 500 Plus membrane is an aliphatic, rapid curing, high solids, VOC compliant, modified high performance methane barrier membrane. The Liquid Boot® 500 Plus membrane is prepared by spray applying 40 mil of Liquid Boot® 500 over VI-20 geomembrane to overall thickness of 60 mil. VI-20 membranes are adjoined by seams overlapping minimum 6” and manually press bonded together using 20 mil Liquid Boot® 500.

The repair process for both systems is as follows:

- a) Spray 20 mil Liquid Boot 500 over a repair area.
- b) Cut a piece of BaseFabric T-40/T-60 on Liquid Boot 500 system or VI-20 geomembrane on Liquid Boot500 Plus, as applicable extending 2 inches minimum beyond the repair area.
- c). Spray Liquid Boot 500 over the repair area to a minimum of 40 mil dry.

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RE: 1) Liquid Boot® 500 Spray Applied Membrane for Below-Grade Waterproofing and Gas Barrier. 2) Liquid Boot® 500 Plus Spray Applied Methane Barrier Membrane.

The Liquid Boot® 500 spray applied for below-grade waterproofing and gas barrier and the Liquid Boot® Plus spray applied for gas barrier are approved subject to the following conditions:

1. The chloroprene modified asphaltic emulsion and catalyst shall be supplied in clearly marked containers bearing the brand name and product identification. Both components shall be supplied by the same source manufacturer.
2. The manufacturer shall provide quality assurance of the materials supplied as to their formulation.
3. Application of the product shall be accomplished by an applicator approved by the manufacturer. A written statement by the manufacturer stating that the applicator is an approved applicator is required prior to use of the product.
4. All surfaces to receive membrane shall be free of laitance, sharp projections, oil, dirt or other contaminants. Prepare surfaces in accordance with the manufacturer's instructions.
5. Installation of the materials shall be in accordance with the manufacturer's instructions, a copy of which shall be kept at the job site.
6. Complete details for the membrane system are submitted for plan check and a building permit is obtained.
7. The following field tests in accordance with the Liquid Boot Field Installation and Repair Procedure are required: (A copy of the Installation and Repair Procedures is on file with Engineering Research Section.)
 - a. Perform Thickness Sample Test at every 500 square feet.
 - b. For gas barrier application, perform Smoke Test for the entire site at the interval not more than 50,000 sq. ft. each.
8. Protection for the membrane shall be provided in accordance with the written instructions by the engineer of the record.
9. Prior to placing the concrete slab over the membrane, the membrane installer shall certify the membrane to be installed and tested in accordance with the manufacturer's specifications and to be free of leaks.
10. The membrane used for gas barrier is not to be placed under the building footings.
11. For gas membrane installation, continuous inspection by a registered deputy inspector certified by CETCO Liquid Boot Company and registered in accordance with the requirements specified in Section 1704.1.3 of the Los Angeles City Building Code for special inspection is required.

CETCO Liquid Boot Company

RE: 1) Liquid Boot® 500 Spray Applied Membrane for Below-Grade Waterproofing and Gas Barrier. 2) Liquid Boot® 500 Plus Spray Applied Methane Barrier Membrane.

12. Liquid Boot 500 Plus is not approved for damp proofing or waterproofing.

DISCUSSION

The approval of the Liquid Boot 500 Plus is on a temporary basis until the following tests in accordance with Below-grade Exterior Dampproofing and Waterproofing Materials (L021). are submitted as a technical modification within one year: 1. Resistance to Decay; 2. Tension and Elongation; 3. Puncture Resistance; and 4. Hardness.

The report is in compliance with the 2014 Los Angeles City Building Code.

The use of Liquid Boot®500 and Liquid Boot®500 Plus for gas barrier is based on tests in accordance with the City of Los Angeles methane barrier test criteria (AC-L137).

The Liquid Boot®500 membrane was tested to maintain a minimum effective confining fluid pressure of 20 psi which is equivalent to a head of 33.3 feet of water.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this Approval have been met in the project in which it is to be used.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

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