

Maine Department of Transportation
Qualified Products List - Product Qualification Criteria
Section 508 – Waterproofing Membrane

ITEM 508.13 - MEMBRANE WATERPROOFING

ITEM 508.14 - HIGH PERFORMANCE WATERPROOFING MEMBRANE

-- Specification

When high performance membrane is specified, the materials shall meet the requirements of the Manufacturer and shall be one of the prequalified products listed on the Department's Qualified Products List (QPL) of Waterproofing Membrane. All other membrane shall consist of an adhesive primer, preformed sheet waterproofing membrane, and a mastic with all components being as recommended by the Manufacturer and prequalified by the Department as described above.

--Required Submissions and Demonstrations

Phase 1

1. Manufacturer shall submit a completed Preliminary Information for Product Evaluation (QPL Product Submittal) Form, applicable MSDS(s), and other pertinent literature, including its Quality Control Plan for production of membrane, a detailed summary of its Applicator Training & Certification Program, and its Field Process Quality Control Plan.
2. Manufacturer shall submit a detailed summary of successful installations that have occurred in the United States, including owner contact information, design and construction details (substrate type & condition, membrane system components, bituminous overlay thickness and mix details, etc.), year constructed, tests performed, performance monitoring and/or testing, and any other additional information requested by the Department.
3. In the absence of successful U.S. installations, information from installations occurring in Canada may be submitted. The Department reserves the right to delay consideration of membrane systems that have not established a successful track record in the U.S., until such time as successful installations have been documented to the satisfaction of the Department.
4. Manufacturer shall make a presentation of their system to appropriate Department personnel. This presentation shall be scheduled through MaineDOT's Product Evaluation Program. At the discretion of the Department, Phase 2 may be omitted, proceeding directly to Phase 3.

Phase 2

5. Manufacturer shall set up and perform a demonstration on a test slab in the field, in the presence of Department personnel set up through MaineDOT's Product Evaluation Program. It is the Manufacturer's responsibility to locate or place a suitable slab within reasonable travel distance from Augusta, Maine. At the Department's option, out-of-state locations within a reasonable distance from the Maine State line may be acceptable provided that sufficient notice is given to allow Department personnel sufficient time to obtain proper out-of-state travel authorization.

During the demonstration, the intended applicator must demonstrate proficiency in applying the membrane, including overlap technique. A minimum of 16 square feet must be applied per applicator. The purpose of this requirement is for the Manufacturer to demonstrate the effectiveness of its Applicator Training & Certification Program. The Manufacturer shall perform testing consistent with the applicable specification requirements.

6. The Department will evaluate the membrane and application, and may request additional testing such as bond, crack-bridging, and freeze-thaw stability.

Maine Department of Transportation
Qualified Products List - Product Qualification Criteria
Section 508 – Waterproofing Membrane

Phase 3

7. A demonstration bridge deck application will be required. The Department will allow the membrane to be applied on a small (approximately 2000 square feet) bridge project as an alternative to a system already on the QPL. It is recommended that this application occur on a bridge project that is presently under development, but not yet advertised for bids.

The Department shall be responsible for preparation of the bridge deck surface to the manufacturer's specification. The Department shall also be responsible for any required work zone traffic control.

The manufacturer shall provide all necessary products for the test application including primers and actual membrane material as well as all labor to perform the installation. After the installation of the membrane, the bridge deck shall be ready for the hot-mix asphalt overlay.

A manufacturer's representative shall be on site at all times during membrane installation and the first paving course of the asphalt overlay.

It is the responsibility of the Manufacturer to work closely with the Contractor to coordinate this application, and to inform MaineDOT's Transportation Research Division in order that proper monitoring and evaluation of the test deck may take place.

8. During this and any subsequent applications, only Certified Applicators will be allowed to apply the membrane. The Field Process Quality Control Plan is expected to be followed at all times during construction. It is the responsibility of the Manufacturer and its field representative to ensure that applicators have received proper training and certification prior to placing membrane on a MaineDOT bridge (i.e. on-the-job training on this test deck is not acceptable). Written proof of the Applicator's certification to install the Manufacturer's membrane system shall be provided to the Resident for inclusion in the project records.

--Qualification Criteria

9. The Department will evaluate and monitor the performance of the membrane installation. The minimum evaluation period will span two winter seasons with normal traffic loads and conditions. During this time, the membrane will be classified as being "Under Evaluation." Any further use during this period will be at the discretion of the Department. This evaluation period may be extended beyond two winter seasons if required by the Bridge Program.

10. Providing no negative issues arise during this evaluation period, the membrane will be granted pre-qualified status and added to the QPL for consideration alongside other pre-qualified membranes for use on Department projects.

Following the Department's evaluation of the membrane, the Manufacturer will be notified in writing of the qualification status of the membrane system.

11. The Department will continue to evaluate its qualification criteria as well as products that have been previously qualified against them, and reserves the right to revise the criteria and/or withdraw product prequalification status at any time, for any reason, and without prior notice.

Doug Gayne
Product Evaluation Coordinator

Last updated: March 29, 2012