## **Waterproofing Membranes**

#### Overview

When choosing a "High Performance Membrane" system from this list, it is the responsibility of the Contractor to ensure that the intended pavement overlay depth will provide adequate protection to the waterproofing membrane system selected. Please Note: Moisture meters should adhere to the manufacturer's requirements and recommendations.

Waterproofing membrane manufacturers, suppliers, and installers shall review this document for the Membrane Waterproofing submittal process prior to making a product submittal. Please note that any materials on this list with "Conditional Approval" may be used only with written permission of the Department's Bridge Program.

#### **Criteria & Process**

MaineDOT Standard Specifications: Current Version, Section(s) 508.13 Membrane Waterproofing; 508.14 High-Performance Waterproofing Membranes.

#### PHASE 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.
- 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.
- 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.
- •When Requested by MaineDOT the 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.

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#### PHASE 2

- Manufacturer shall perform a demonstration installation 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.
- The Department will evaluate the membrane and application, and may request additional testing such as bond, crack-bridging, and freeze-thaw stability.

#### PHASE 3

- Initial approval will be given, and product will be added to QPL, if approved by the committee, and shall be limited to a single span two lane bridge deck.
- The initial deck application will be limited. The Department will allow the membrane to be applied on a single span 2-lane 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. All trial waterproofing membranes applied, must be on a priority 3 or lower road/bridge.
- 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 Initial 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

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in order that proper monitoring and evaluation of the test deck may take place.

• 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

- The Department will evaluate and monitor the performance of the membrane installation. The minimum evaluation period will span two years, including two winter seasons, with normal traffic loads and conditions. During this time, the membrane will be limited as listed above. 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. The Manufacturer will warranty the waterproofing membrane during the full evaluation period.
- Providing no negative issues arise during this evaluation period, the membrane will be granted pre-qualified status and the size limit will be removed from the listing on MaineDOT's OPL.

PRODUCT CONFORMITY: At the discretion of MaineDOT, any shipment of product to a MaineDOT location may be tested, such as by infrared or gas chromatography, for compliance with the SDS and uniformity with the formulation of the approved product (where applicable).

NOTE: MaineDOT may require a field evaluation before final acceptance and inclusion on the Qualified Products List (QPL).

A vendor who wishes to have products preapproved for future use should contact MaineDOT's Product Evaluation Coordinator via email at <a href="MewProducts.MaineDOT@maine.gov">NewProducts.MaineDOT@maine.gov</a> or by calling (207) 557-1788. More information can also be found on our website, including our electronic submittal and recertification forms.

### **Submittals**

Product Submittal Packets shall include the following information:

- Electronic New Product Submittal form
- Current Technical Data Sheet

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- Current Safety Data Sheet (SDS)
- Third Party, Independent Test Results OR AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) testing ID for those products requiring this testing

### Incomplete submittals will not be evaluated for inclusion on MaineDOT's Product Lists.

All reports shall be issued and signed by an authorized laboratory representative. The report shall include date of testing, product name, and the physical and/or chemical requirements stated herein.

### **Product Changes**

Any change in a product, such as formulation, shall require re-testing (through AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) if required) or independent, third-party lab Manufacturers shall notify MaineDOT of products changes and resubmit as a new product for reevaluation, failure to do so may result in removal of product from MaineDOT's QPL. Manufacturers shall submit, for re-evaluation, an updated independent analytical laboratory report (or AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) testing ID) prior to approval or purchase by MaineDOT.

#### Recertifications

MaineDOT requires re-certification by all manufacturers every five years (except for electrodes used for field welding which are recertified every year) to ensure that product names and formulations have remained the same since the product was originally placed on this list and that products are still relevant and in production. Where applicable, this shall include the most recent AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) testing ID. Additionally, AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) provides for retesting products. A lapse of AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) testing/audit schedule as set forth in the associated workplan shall result in disqualification of the product. Manufacturers of any products requiring MASH testing must contact MaineDOT Product Evaluation Program of any changes to their products. Manufacturers are responsible for tracking their recertification dates, reminders will not be sent. Failure to recertify products may result in removal from the QPL. Recertifications can be completed using the Electronic Certificate of Compliance found on our website.

#### Other Information

The Department continues to evaluate its Acceptance Criteria and reserves the right to revise the criteria and/or withdraw product qualification at any time for any reason without notice. Furthermore, the ability of a product to meet these requirements does not necessarily guarantee

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addition to the Qualified Products List. Reminder that, products once placed on the Qualified Products List are to be considered prequalified for use only, meaning that they have undergone preliminary review for compliance with MaineDOT, and AASHTO specifications. As with all products, final approval rests with the Designer, Project Manager, Supplier and/or Resident to determine if a product best suits the need of a particular project.

If you are experiencing difficulties reading or printing this page, or have questions regarding the Qualified Products List website, please contact the Product Evaluation Program Coordinator at (207) 557-1788 or by email at: NewProducts.MaineDOT@maine.gov

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