

MaineDOT Qualified Products Acceptance Criteria

Concrete Coatings & Sealers

Overview

All new products on the Concrete Coatings and Sealers list (CCS) are required to be tested through AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) Protective Coatings testing program starting 12/15/2021. Any products, approved prior to 12/15/2021, shall be tested through AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) and submit AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) testing ID# to the Maine DOT Product Evaluation Program by 12/15/2023. In addition, these products must remain current with AASTHO Product Evaluation & Audit Solutions (formerly NTPEP) policy regarding periodic retesting as required by the program.

Criteria

PLEASE NOTE: Products may have multiple uses. Products appearing on this list are expressly pre-qualified for this category of use only. Do not use these products for other applications unless the product is noted on other lists.

All products must comply with MaineDOT Standard Specifications: Current Version, Section(s) 515 and VOC (Volatile Organic Compounds): Protection Air Rules, Chapter 151: Architectural and Industrial Maintenance (AIM) Coatings. MaineDOT requires third party testing in addition to the manufacturer's technical data sheets for VOC levels. ALWAYS consult manufacturer's SDS/MSDS for safety precautions including appropriate PPE prior to use.

Type 1a- Sealers, Penetrating Silane- For traffic bearing surfaces in sheltered conditions where the relative moisture content is $\leq 55\%$. The solids content typical range for Type 1a sealer is 14% to 32%.

Type 1b- Sealers, Penetrating Silane- For traffic bearing surfaces in outdoor conditions where relative moisture content is $\leq 70\%$. These sealers are generally called 40% silane sealers and have a solids content of 25% to 33%.

Type 1c Sealers- High performance, low VOC penetrating sealers for new bridges and overlays with low water/cement ratios (0.30 - 0.45) where the relative moisture content is less than or equal to 80%. This category sealer is considered a 100% silane sealer although the solids content may actually range from 65% to 72%. These sealers must be used on concrete decks that have been cured for a minimum of 28 days.

Testing Data		Requirement
Type 1a, 1b, and 1c (penetrating sealers)	penetrating sealers (waterproofing sealers)	300 g/L (grams per liter limit)

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Type 2a, 2b, and 3	waterproofing concrete and/or masonry sealers (film-forming coatings)	400 g/L (grams per liter limit)
FTIR	Less than 12 months prior to submittal date	
Resistance to Chloride Ion Penetration	AASHTO T259 and T260	< 0.55 Chloride Content Ratio of sealed/unsealed at ½ inch level (Adjusted for baseline chloride)
Penetration Depth	MnDOT Method	0.15 minimum
Testing Data		Requirement
Water Absorption		80% reduction minimum
Waterproofing Performance	AASHTO T384	
Moisture Vapor Transmission (Type 1b Penetrating Sealer Test)		70% minimum

Field Use:

Allow 28 days continuous drying after burlap is removed from new concrete (types 1a, 1b, and 1c).

For mature concrete allow a minimum of 72 hours continuous drying after washing or heavy rainfall. Flood coat the surface and repeat on high spots and areas that dry quickly.

Type 2a Sealers- Clear Coating: One component clear coating for vertical and non-traffic bearing concrete surfaces where the relative moisture content is less than or equal to 70%.

Type 2b Sealers- Clear Coating: Two component clear coating for vertical and non-traffic bearing concrete surfaces where the relative moisture content is less than or equal to 70%.

Type 3 Sealers- Pigment Coating: Colored coatings used for vertical non-traffic bearing concrete surface where aesthetics are part of the project.

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).

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A vendor who wishes to have products preapproved for future use should contact MaineDOT's Product Evaluation Coordinator via email at NewProducts.MaineDOT@maine.gov or by calling (207) 557-1788

Submittals

Product Submittal Packets shall include a COMPLETED:

- New Product Evaluation form
- Current Technical Data Sheet
- 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 re-evaluation, 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

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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.

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 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