

MaineDOT Qualified Products Acceptance Criteria

Selecting Anchoring Products

Overview

ALL REINFORCING AND ANCHORS

Proof load testing may be done when any of the following concerns arise:

- The quality of the installation may not be adequate.
- The available concrete thickness is not adequate to provide unconfined pullout strength equal to the yield of the anchor.
- The condition of the concrete is deteriorated, spalled, or cracked.
- The load requirements for pullout (not shear) are structurally critical.

The following information will be provided on the plans, or in the specifications:

- Anchor size
- Anchor spacing and layout
- Anchor type
- Unconfined pullout requirement
- Minimum anchor embedment depth

If this information is not in the contract documents, contact the Bridge Program for this information.

Criteria

TYPE 2 AND TYPE 3 REINFORCING STEEL < M24 (#8), ANCHORS < M24 (1")

Any product on the Qualified Products List may be used as long as there is adequate embedment to develop the specified unconfined pullout. The actual depth required varies between products but may not be less than the minimum depth information specified on the plans.

The minimum anchor embedment provided in the contract document is based on the depth required to prevent failure of the existing concrete, not the requirements of the anchoring material. Minimum embedment specified is usually based on the assumption that the existing concrete strength is < 3000 psi, and that there is less than 1/2" of deteriorated concrete on the surface. If the concrete appears to be soft, poor, or there is significantly more than 1/2" of deteriorated concrete, check with the Bridge Program to make sure the conditions are accounted for.

TYPE I REINFORCING STEEL > M24 (#9), ANCHORS > M24 (1")

Anchoring material shall be selected from the Qualified Products List and approved by Transportation Research and the Bridge Program. 1 mm = 0.04 inch 1 kN = .225 K

MaineDOT Standard Specifications: Current Version, Section(s) 503 – Reinforcing Steel: 503.06 – Placing & Fastening:

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When specified on the Plans, reinforcing steel shall be anchored into drilled holes. The anchoring material shall be one of the products listed on the Maine Department of Transportation's Qualified Products List, Type 3 Anchoring Materials. Installation shall be in accordance with the manufacturer's published recommendations. Minimum embedment lengths of reinforcing bars shall comply with the manufacturer's published recommendations for the anchoring material selected.

MaineDOT Standard Specifications: Current Version, Section(s) 504 – Bridge Steel Erection:
504.42 – Bearing and Anchorages:

If the anchor rods are set in drilled holes, use an anchoring material from the MDOT Qualified Products List. Anchor rods shall be capable of developing unconfined pullout strength of 30 Kips and 70 Kips for 1 inch and 1½-inch anchor rods respectively. The Department reserves the right to perform in place, pullout tests. Replace bolts failing to meet the pullout strength requirements.

MaineDOT Standard Specifications: Current Version, Section(s) 504 – Bridge Steel Erection:
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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 NewProducts.MaineDOT@maine.gov 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

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- 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 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.

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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