

MARYLAND STATE HIGHWAY ADMINISTRATION
OFFICE OF MATERIALS TECHNOLOGY
7450 Traffic Drive, Building #4
Hanover, MD 21076

**PROCEDURE FOR THE QUALIFICATION OF
GEOTEXTILES**

The Maryland State Highway Administration (SHA) maintains a Qualified Products List (QPL) which includes qualified Geotextiles. Geotextiles shall conform to Maryland Standard Method of Tests (MSMT) [732](#) and [Section 921.09](#) of the Special Provisions Insert.

If you are interested in having your product qualified, please visit [Maryland's Product Evaluation Listing \(MPEL\)](#) and then select VENDOR REGISTRATION to begin the process.

When your registration has been accepted, you will receive an email requesting you to submit the following information into MPEL:

1. The manufacturer shall certify that the Geotextiles meet or exceed the MARV requirements.
2. The manufacturer of the Geotextile material is required to have the Geotextile evaluated by the National Transportation Product Evaluation Program (NTPEP).
3. A supplier/distributor supplying Geotextile under a private labeler arrangement shall have their product listed in the NTPEP Geotextile bulletin under the private labeler following NTPEP procedures.
4. The Manufacturer is required to provide an original signed copy of MARV on the manufacturer's letterhead. No MARV letter will be accepted without a date, certification statement and a signature. In addition to the copy in MPEL, the original MARV letter should be mailed to the following address:

Office of Materials Technology
7450 Traffic Drive
Hanover, MD 21076
ATTN: Rodney Wynn

5. Specify the Product Name, NTPEP GTX Number, Style Type, and Chemical Composition of the Filaments or Yarns, and Unit Weight and the intended Maryland Application Class (MAC).
6. The manufacturer shall supply roll test data showing the test results of all individual rolls of Geotextile materials shipped to a Supplier/Distributor.
7. The Manufacturer shall maintain records documenting sources of polymer components and fibers. Copies of these documents shall be provided upon request.
8. The Manufacturer shall provide documentation regarding their quality control program at the time their material is submitted for approval on Maryland's Qualified Products List.
9. Any producer wishing to be included on the Office of Materials Technology (OMT) Qualified Products List (QPL) must comply with items 1 through 8, 921.09.01 of SHA's SPI and AASHTO M-288.

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- 10. Revised MARV Letters representing formulations of material currently approved that do not meet the criteria of Section 921.09.1 of SHA's SPI and AASHTO M-288, will not be accepted again for re-evaluation within six (6) months of the most recent examinations, unless requested by the SHA.**
- 11. Materials/Products representing revised formulations/standards of currently approved Qualified Products will not be accepted for testing within six (6) months of the most recent evaluation, unless requested by SHA.**
- 12. Materials/Products evaluated and not accepted, are not eligible for resubmission within six (6) months of the most recent examinations, unless requested by the SHA.**

DEFINITIONS:

Minimum Average Roll Values (MARV) Letter – The original signed letter contains the MARV for a specific geotextile as guaranteed by the Manufacturer on their letterhead. The MARV letter shall be updated at every 36 months; signed and dated by an authorized company representative.

Roll Test Data – A code or designation which must be clearly stamped or labeled on each roll of material shipped to an Administration project. For each shipment, the Roll test data on the material and the Bill of Lading should always match.

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MATERIAL TESTING AND EVALUATION

Dear Customer:

The Office of Materials Technology (OMT) has a schedule of cost reimbursement for the review and evaluation of Geotextile materials to be placed on OMT's Qualified Products List (QPL).

Your company has requested that the following material(s) be reviewed and evaluated in accordance with **Section 921.09.01** (of the Special Provisions Insert). If approved, the product will be included in OMT's QPL for that category, providing all criteria are met.

All specified information shall be forwarded to:

Office of Materials Technology
7450 Traffic Drive, Building #4
Hanover, MD 21076
ATTN: Mr. Rodney Wynn

A cost reimbursement of **\$200.00** will be applied for Quality Control (QC) review and processing. No review will begin until verification of payment is received from the State Highway Administration Cashier's Office.

Please complete the attached form and return it along with a Cashier's Check made payable to the Maryland State Highway Administration. These items should be mailed to the following address:

Cashier's Office
P.O. Box 1636
Baltimore, MD 21203

If you have any questions, please contact Rodney Wynn at 443-572-5043, or via email at rwynn@sha.state.md.us

Sincerely,

Rodney C. Wynn, Team Leader
New Products & Research

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Cashier's Office
P.O. Box 1636
Baltimore, MD 21203

AW176M2G

Attention Cashier:

This cost reimbursement will cover the review and evaluation for the qualification of geotextiles. Verification of payment is required before any review and evaluation will be performed. All evaluation and quality testing will be conducted by the Office of Materials Technology. Please submit a copy of payment verification into MPEL.

*** Please include certified results for the tests listed below.**

MATERIAL Product Name (I.D.)

TEST	METHOD
Grab Tensile Strength	ASTM D-4632
Grab Elongation	ASTM D-4632
Trapezoid Tear	ASTM D-4533
Puncture Strength, lb	ASTM D- 6241
Permittivity	ASTM D-4491
A.O.S.	ASTM D-4751

TOTAL COST REIMBURSEMENT: \$200.00 (Cost reimbursement includes Processing and Handling)

NAME: _____

**PRODUCT
NAME:** _____

COMPANY: _____

ADDRESS: _____

PHONE: _____



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921 — MISCELLANEOUS

**CATEGORY 900
MATERIALS**

SECTION 921 — MISCELLANEOUS

921.09.01 Geotextile Requirements. Geotextiles used on Administration projects shall participate in the National Transportation Product Evaluation Program (NTPEP) and conform to the Contract Documents and MSMT 732. Geotextiles shall be manufactured from fibers consisting of long chain synthetic polymers, composed of a minimum 95 percent by weight of polyolefins or polyesters, and formed into a stable network so the filaments or yarns retain their dimensional stability relative to each other, including selvages. Geotextiles used on Administration projects shall conform to the following:

MARYLAND APPLICATION CLASS		TYPE OF GEOTEXTILE	GRAB STRENGTH lb	PUNCTURE STRENGTH lb	PERMITTIVITY sec ⁻¹	APPARENT OPENING SIZE, MAX mm	TRAPEZOID TEAR STRENGTH (MD ^{***}) lb
			D 4632	D 6241	D4491	D 4751	D 4533
SD	TYPE I	NONWOVEN	160	310	0.50	0.43	55
		WOVEN, MONOFILAMENT	250	495	0.50	0.43	90
	TYPE II	NONWOVEN	160	310	0.20	0.25	55
		WOVEN, MONOFILAMENT	250	495	0.20	0.25	90
PE	TYPE I	NONWOVEN	200	430	0.70	0.43	80
		WOVEN, MONOFILAMENT	250	620	0.70	0.43	90
	TYPE II	NONWOVEN	200	310	0.20	0.25	55
		WOVEN, MONOFILAMENT	250	495	0.20	0.25	90
	TYPE III	NONWOVEN	200	220	0.10	0.22	40
		WOVEN, MONOFILAMENT	250	370	0.10	0.22	70
SE	NONWOVEN	160	310	0.20	0.30	80	
	WOVEN	250	495	0.20	0.30	90	
ST	WOVEN	300*	600	0.05	0.15**	110	
F	WOVEN	200	450	0.05	0.60	75	
E	NONWOVEN	200	450	1.1	0.21	80	
	WOVEN, MONOFILAMENT	370	900	0.28	0.21	100	

Note 1: All property values in the above table are based on minimum average roll values in the weakest principal direction except for apparent opening size.



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921 — MISCELLANEOUS

Note 2: The ultraviolet stability shall be 50 percent after 500 hrs of exposure for all classes, except Class F, which shall be 70 percent (D 4355).

* 15% elongation for silt fence and monofilament woven geotextile in Machine Direction

** This is a MINIMUM apparent opening size, not a maximum.

***Machine Direction

Contact the Office of Materials Technology's Soils and Aggregate Technology Division for approval of geotextiles used for reinforcement applications.

921.09.02 Seam and Overlap. D 4884. Geotextiles joined by sewing shall conform to the following:

- (a) Either "J" or "Butterfly" type seams joined with a lock stitch.
- (b) Tensile strength requirements when tested across the seam.
- (c) Thread used for seaming shall be of equal or greater durability than the geotextile itself.

921.09.03 Securing Pins or Staples. Minimum 10 in. length and designed to securely hold the geotextile in place during construction.