

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

**PROCEDURE FOR THE QUALIFICATION OF
JOINT SEALANT AND CRACK FILLER**

The Maryland Department of Transportation State Highway Administration (MDOT-SHA) maintains a list of qualified Joint Sealants. These materials shall conform to [911.01](#) of MDOT-SHA's Standard Specifications for Construction and Materials.

To qualify for this category:

1. The manufacturer places the candidate material on a test deck of the National Transportation Evaluation Program (NTPEP) <http://www.ntpep.org>. NTPEP qualification requirements are listed in the online NTPEP JS/CF User Guide.
2. The field and laboratory NTPEP test results are compared to SHA specifications.
3. Upon satisfactory review of NTPEP data and Safety Data Sheet, the manufacturer of the material will be notified of the acceptable NTPEP product evaluation code(s).

The material manufacturer must then visit Maryland's Product Evaluation listing (MPEL) located at <https://apps.roads.maryland.gov/MPEL/> and select VENDOR REGISTRATION to begin.

When your registration has been accepted, you will receive an email requesting submission of the following documentation into MPEL:

1. NTPEP Evaluation code
2. NTPEP Field Testing Criteria
3. Starting Test date

Qualifications are limited to **three** products per manufacturer for this category.

Approved products are required to continue to meet specifications. Products found not in compliance with contract requirements or specifications will be subject to rejection whether in place or not.

To Maintain Approval for Joint Sealant and Crack Filler

Products currently listed on the QPL will remain approved provided the formulation and test results have not changed or been altered from the original northern NTPEP Product ID submittal. All Joint Sealant and Crack Filler materials shall be evaluated by NTPEP every six years with test results submitted to the Administration for recertification purposes.

The Administration reserves the right to withdraw any product from the QPL for unsatisfactory performance.

If you have any questions or require additional information, contact Ed McCarty at 443-386-9277 or send email to emccarty@mdot.maryland.gov

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**PROCEDURE FOR THE QUALIFICATION OF
COLD PATCH MATERIALS**

The Maryland Department of Transportation State Highway Administration (MDOT-SHA) maintains a Qualified Products List (QPL) which includes Cold Patch Materials (CPM). CPM shall conform Section 924 of MDOT-SHA's Supplemental Specification and Provisions. Special Provisions Insert (SPI) [924](#) is included below.

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

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

1. Certification with the manufacturer's name, product name, statement that the material has been tested and found in conformity with specification requirements.
2. Material Safety Data Sheet (MSDS).

CPM is approved through manufacturer's certification; however, SHA reserves the right to take independent samples to confirm specification compliance.

Qualifications are limited to **two** products per manufacturer for this category.

Approvals are granted subject to continuing production of materials performing in the field. Materials used based on Certificates of Compliance may be sampled and tested after qualification. Products found not in compliance with contract requirements or specifications will be subject to rejection whether in place or not.

Inform the Administration immediately of any changes in the composition of the product. After SHA has reviewed the changes, a new sample(s) may be requested to be submitted along with the information above.

Materials/Products representing revised formulations/standards of currently approved products will not be approved for testing within six months of the most recent evaluation unless requested by the Administration.

Materials/Products evaluated and not approved are not eligible for resubmission within six months of the most recent examination unless requested by the Administration.

Producers are required to recertify their products every 5 years to remain on the QPL beginning February 2015. A cost reimbursement of \$165.00 per product will be applied for the Recertification process. Products approved within 36 months of the Recertification Date are exempt.

Submit a certified letter on manufacturer's letterhead stating that the product formulation has not changed. Also submit a current MSDS and current test results. Samples will be requested as needed.

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MATERIAL TESTING AND EVALUATION

Attention Customer:

The Office of Materials Technology has a schedule of cost reimbursement for the evaluation of materials to be placed on our Qualified Products List (QPL).

Forward the sample and related information (**Data Sheet, MSDS, and quality control data**) to:

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

A cost reimbursement of **\$489.17** per product will be applied for the evaluation of CPM. Evaluations will not begin until verification of payment is received by the Administration's Cashier's Office.

Complete the attached form and return it along with a Cashier's Check made payable to the Maryland State Highway Administration. Mail these items to the following:

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

If you have any questions, contact us via email at MPPEL@mdot.maryland.gov

Sincerely,

New Products and Research Team
Office of Materials Technology
cc: Asphalt Binder Team Leader

MARYLAND DEPARTMENT OF TRANSPORTATION
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OFFICE OF MATERIALS TECHNOLOGY
7450 Traffic Drive, Building #4
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Cashier's Office
P.O. Box 1636
Baltimore, MD 21203

AW176M2K

Attention Cashier:

This cost reimbursement covers the processing and testing for the qualification of materials. Verification of payment is required before any testing will be performed. All testing will be performed by the Office of Materials Technology. Submit a copy of payment verification into MPEL.

*** Please include all certified results and temperature requirements for tests performed by your accredited testing agency.**

MATERIAL: Product Name (I.D.)

TESTS AND SPECIFICATION REVIEW:

TOTAL COST REIMBURSEMENT PER PRODUCT: \$489.17 (Cost reimbursement includes Processing and Handling)

NAME: _____

**PRODUCT
NAME:** _____

COMPANY: _____

ADDRESS: _____

PHONE: _____

SPECIAL PROVISIONS INSERT

CONTRACT NO.

PROCEDURE FOR THE QUALIFICATION OF PAVEMENT REPAIR MATERIALS

**CATEGORY 900
MATERIALS**

DELETE: SECTION 924 — RESERVED.

INSERT: The following.

SECTION 924 — COLD PATCH MATERIALS

924.01 DESCRIPTION. Cold Patch Materials (CPM), including Water-Activated Cold Patch Material (WACPM), are high performance asphalt patching materials used to repair potholes, deteriorated concrete, and asphalt pavement in all seasons. The material shall be capable of making permanent repairs with minimal effort and with minimal disruption to traffic.

CPM/WACPM are produced by approved manufacturers using specially formulated binders. The CPM material may be produced in bulk and stockpiled or packaged in buckets or bags weighing 40 to 50 lb, or packaged as approved. The WACPM is produced and packaged in buckets or bags weighing 35 to 60 lb. Select from the Qualified Products List (QPL).

924.02 MATERIALS.

Aggregates	M 29 T 11 T 2
Binder	D244 D402 T 59 T 78

924.02.01 Binder. Binder shall provide aggregate coverage per TP 40. No additives, modifiers, or extra ingredients may be introduced into the liquid oil blend after shipment. Binder shall meet a maximum of 0.1 percent volume by weight of the original sample when tested to 500 F (260 degrees C) per T 59 or, the binder shall contain no more than 6.0 milliliters of oil distillate when tested per D244, D402 or T 78, depending on the type of binder used. The residual binder content shall be approximately 5 to 9 percent of the mix.

924.03 MIX PERFORMANCE REQUIREMENTS. Cold Patch Material patches shall remain in place when paved over and shall not adversely affect the final surface. The material shall not require primer or tack and shall be compatible with asphalt and/or concrete at a minimum thickness of 1/2 in. The material must be capable of filling potholes in wet or dry conditions in ambient temperatures as low as to 5 F and up to 100 F.

SPECIAL PROVISIONS INSERT

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PROCEDURE FOR THE QUALIFICATION OF PAVEMENT REPAIR MATERIALS

The material shall permanently adhere to deteriorated concrete or bituminous pavement until the surrounding pavement fails. Removal shall not be required when the surface is overlaid with asphalt.

The Administration reserves the right to sample composite material or mixture at any time.

WACPM Job Mix Formula. The job mix formula shall establish a single percentage of aggregate passing each required sieve, a single percentage of binder to be added to the aggregate and a range of add water required to activate strength.

Submit results of the proposed job mix formula to the Office of Materials Technology through the Engineer for approval. The report shall show that all materials were tested and meet the following.

Aggregate Gradation				
Sieve Size	Percent Passing			
	4.0mm (1/8")	6.0mm (1/4")	9.0mm (3/8")	12.0mm 1/2"
1/2"	100	100	100	95-100
3/8"	100	100	85-100	65-85
#4	90-98	80-100	35-60	38-60
#8	60-70	20-55	15-35	25-45
#16	40-57	12-32	14-25	10-20
#200	4-9	3-6	3-6	3-6

Job Mix Formula Analysis		
Test	Test Designation	Specification Limits
Gradation	T 30	Report
Particle Coating	T 195	>95%
Asphalt Content	T 308	5.0 – 9.0%
Draindown	T 305	≤8%

924.03.01 Storage. CPM/WACPM furnished in bags or containers shall be stored in accordance with the manufacturer’s recommendations. CPM/WACPM shall remain workable in storage for at least six months.

CPM may also be furnished from stockpiled material that has been stored outside

924.03.02 Usage. CPM shall be uniformly mixed and require no mixing prior to use. The material shall be capable of being poured or shoveled into a hole. The material shall require minimal pothole preparation consisting of removing most of the water and debris as possible from the pothole. The material shall be capable of displacing any water remaining in the hole. The material shall be placed and compacted in accordance with the manufacturer’s recommendations. The material shall not ravel nor adhere to tires when opened to traffic.

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PROCEDURE FOR THE QUALIFICATION OF PAVEMENT REPAIR MATERIALS

924.03.03 Quality Control Plan (QCP). Submit a Quality Control Plan (QCP) that includes the following.

- (a) Description of Material.
- (b) Contact Personnel.
- (c) Safety Data Sheets (SDS).
- (d) Technical Data Sheets, including VOC content.
- (e) Job Mix Formula.
- (f) QC Material Sampling Process.
- (g) Storage Requirements.

The QCP shall also state that if a test result indicates that a shipment is not in compliance with specifications, the following shall apply.

- (a) Immediately notify the Administration of the shipment in question.
- (b) Identify the material.
- (c) Cease shipment until material complies with specifications.
- (d) Notify the Administration prior to resuming shipment.
- (e) Implement any mutually agreed upon procedures for the disposition of the material.

In the event a mutual agreement is not achieved, the Administration shall have final authority in the decision on specification compliance.

924.04 CERTIFICATION. Provide certification that the material meets requirements per TC 1.03 and the following.

- (a) A guarantee the material conforms to the Materials, Binder, Mix Performance and Storage requirements and COMAR environmental regulations.
- (b) Employ an unaffiliated AASHTO-accredited laboratory to perform all testing for certification.

Acceptance testing will be completed on delivered material as determined. Each delivery shall be considered one lot. The material may be subject to a workability evaluation either in the lab or

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PROCEDURE FOR THE QUALIFICATION OF PAVEMENT REPAIR MATERIALS

in the field. Non-conforming materials will be rejected whether in-place or not. Remove all CPM inventory on hand that fails to meet requirements and replace.

Replacement Warranty. Material that does not remain workable in storage for at least six months shall be replaced. Product that does not perform in normal pothole patches for at least twelve months will be evaluated for performance. Material that consistently fails to meet requirements will be removed from the QPL.