

State of Louisiana  
Department of Transportation and Development (DOTD)  
Materials and Testing Section Approved Materials Procedure  
for

**HIGH FRICTION SURFACE TREATMENT (HFST)  
FOR ASPHALT AND CONCRETE PAVEMENTS**

**MATERIAL SPECIFICATION REFERENCE:**

DOTD Standard Specification Section 1017, AASHTO MP 41, Supplemental Specifications and Special Provisions.

**APPROVED MATERIAL EVALUATION SUBMITTAL:**

The manufacturer shall submit a completed Approved Materials Evaluation Submittal to the DOTD Materials and Testing Section Coordinator listed below.

**PRELIMINARY REQUIREMENTS:**

The complete submittal must include:

- Complete Approved Materials Evaluation Form
- Letter requesting evaluation of the system
- Product Data Sheets
- Manufacturer's specifications
- Safety Data Sheet (SDS)
- Sample
- Independent Laboratory Test Results
- AASHTO National Transportation Products Evaluation Program (NTPEP) Results

The address of the contact affiliated with AASHTO NTPEP is:

NTPEP Coordinator  
AASHTO National Transportation Products Evaluation Program  
444 N. Capitol St. N.W.  
Suite 249  
Washington, D.C. 20001  
Phone: (202) 624-3695  
Fax: (202) 624-5806  
<http://data.ntpep.org>

For detailed information, refer to the Operational Procedures of the AASHTO NTPEP available from the NTPEP Coordinator.

NOTE: Evaluation will not begin until all required items listed above are received by the Materials Laboratory.

## **PRELIMINARY REQUIREMENTS CONTINUED:**

### Certifications and/or Test Reports

Prior to submitting an "Approved Materials Evaluation Form" to the Materials and Testing Section, the manufacturer shall have successfully completed the requirements of the AASHTO NTPEP for "Evaluation of High Friction and Thin Overlays for Bridges and Pavements". The laboratory and field results obtained from the AASHTO NTPEP report will determine if the physical and chemical properties of the HFST's individual components and system's performance conform to LA DOTD's HFST Special Provision according to AASHTO MP 41 "Standard Practice for High-Friction Surface Treatment for Asphalt and Concrete Pavements Using Calcined Bauxite".

Product Data Sheets shall provide all pertinent information relative to the system to be evaluated, including but not limited to:

- Manufacturer's specifications
- Mixing instructions
- Intended use of the system
- Shelf life
- Typical analysis
- Recommended application procedure
- Application rate

### Sample (to be furnished at no cost to the Department)

Submit one (1) gallon of each individual component (A & B) of the epoxy and one five-gallon bucket of calcined bauxite aggregate for use in the system. Samples will be tested for properties required in the Special Provisions. All samples submitted for evaluation shall be obtained from routine production.

## **TEST REQUIREMENTS:**

### Laboratory Testing

The qualification sample shall meet the performance requirements when tested in accordance to AASHTO MP 41. The epoxy shall meet the performance requirements for a Type III epoxy as stated in Section 1017 of the LA Standard Specification for Roads and Bridges. Additionally, the epoxy will undergo Epoxide Equivalent Testing as well as an Infrared Spectrophotometric Analysis (FTIR Curve) for comparison and verification purposes. The calcined bauxite aggregate shall meet the gradation and chemical composition requirements as stated in AASHTO MP 41.

### Field Evaluation

The Departments may require a local field evaluation to ensure satisfactory installation and performance of friction and adhesion of the system prior to adding the system to the Approved Materials List (AML). The compatibility of the system bonding to materials will be a factor in acceptance of the system.

**GENERAL:**

Upon completion of the evaluation, the submitter will be notified in writing concerning the results of the evaluation and whether the system will or will not be added to the Approved Materials List (AML). The DOTD Materials and Testing Section Coordinator shall be notified in writing of any change from the original system or material submittal. The Department reserves the right to re-evaluate any system or individual material at any time. A Certificate of Analysis (CA) issued from NTPEP of the system shall be submitted every five (5) years from the date of approval to the DOTD Materials and Testing Section Coordinator to remain on the AML.

It is also the manufacturer's responsibility to supply the contact information of the representative responsible for the material to the Materials Section Coordinator to remain on the AML. This is done by completing the Approved Materials Evaluation Form every two (2) years or when there is a change in the manufacturing representative responsible for the material.

**PROJECT ACCEPTANCE REQUIREMENTS:**

The inclusion of any system on the AML is not blanket approval for its use. All systems/materials, regardless of prior approval, shall be sampled in accordance to the Special Provisions. Final acceptance of each lot or shipment is dependent upon test results which shall conform to the established specification requirements and which identify the sample as being representative of the system originally approved.

**DISQUALIFICATION AND REMOVAL:**

Any material may be removed from the AML at any time. Causes for removal from the AML may include, but are not limited to the following:

- Non-conformance with specifications
- Performance requirements
- Failure to notify the Department of any change in material formulation
- Failure of the supplier to provide proper certifications as required by this procedure
- Failing test results obtained by the Materials Section of project verification samples
- Failure to supply current contact information for the material representative in accordance with this procedure

**REQUALIFICATION:**

Any system which has been disqualified and/or removed from the AML will be considered for re-evaluation only after submission of a formal request along with acceptable evidence that the problems causing the disqualification and/or removal have been resolved.

**DOTD MATERIALS AND TESTING SECTION COORDINATOR:**

Justin Morris, P.E.  
Physical Test Engineer  
DOTD Materials and Testing Section  
5080 Florida Blvd.  
Baton Rouge, LA 70806-4132  
(225) 248-4219  
[Justin.Morris@la.gov](mailto:Justin.Morris@la.gov)

Approved 09/12/19

A handwritten signature in blue ink, appearing to read "B. Owens", is written over a horizontal line.

BRIAN OWENS, P.E.  
DOTD MATERIALS ENGINEER ADMINISTRATOR