

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

**SPECIAL FINISH FOR CONCRETE**

**MATERIAL SPECIFICATION REFERENCE:**

DOTD Standard Specifications, Subsection 1011.03, 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 material
- Product Data Sheets
- Safety Data Sheet (SDS)
- Manufacturer's specifications
- Mixing Instructions (if required)
- Sample
- Recommended application procedure and rate
- Independent Laboratory Test Results

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

Certifications and/or Test Reports

Submit a Certificate of Analysis (CA) for samples to be submitted to the Materials and Testing Section. The CA shall show test results applicable to the intended use of the material and the test results shall meet all specifications for DOTD Standard Specifications, Subsection 1011.03, or Supplemental Specifications and Special Provisions.

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

Include a one gallon sample of the material for evaluation completely labeled with manufacturer name, material name, batch number and date of manufacturer, along with a 3 by 5 inch panel coated with the material as proposed for use, for preliminary color and texture approval. The panel must conform to Department color and texture requirements, as outlined below, before any further evaluation is performed.

## TEST REQUIREMENTS:

### Laboratory Testing

All tests are to be performed in accordance with the following:

PROPERTY	TEST METHOD
Density	ASTM D 1475
Viscosity	ASTM D 562
Dry to Touch	ASTM D 1640
Dry Through	ASTM D 1640
Solids percent	ASTM D 2369
Volatile percent	ASTM D 2369
Color (Louisiana Gray) <sup>1</sup>	Visual Inspection
Texture	Visual Inspection
Infrared Spectrum <sup>2</sup>	DOTD TR 610

<sup>1</sup> The coating shall be tinted to match the standard “Louisiana Gray” or federal color # 36440 from Federal Standard 595C. Color chips of “Louisiana Gray” are available from the Materials and Testing Section.

<sup>2</sup> Standards for infrared spectrum shall be kept on file and compared to project samples for acceptance purposes.

Upon AML approval, tolerances for project acceptance will be established using these values plus or minus five percent.

### Accelerated Weathering Test

(a) Four fiberboard panels approximately 1/8 by 3 by 6 in. will be coated with the material. The four coated panels shall be cured at room temperature for twenty-eight days. After curing, two panels shall be kept as control panels and two panels shall be tested in an ultraviolet light-water exposure apparatus (QUV) in accordance with ASTM G 154. Panels shall be unaffected except for slight chalking or discoloration after 1000 hours exposure.

(b) Three prisms measuring a maximum of 3 x 4 x 16 in. after being coated shall be prepared using a DOTD Class A mix design. These prisms shall be cured for twenty-one days in a 100 percent humidity room and then transferred to a 50 percent humidity room and allowed to cure for seven days before removal.

**TEST REQUIREMENTS CONTINUED:**

The three cured prisms will be placed on a flat, level working table and the special surface finish will be applied in accordance with the manufacturer's printed instructions to the top and four sides. After allowing them to dry for 24 hours the bottoms shall be coated in accordance with the manufacturer's printed instructions and allowed to dry for 24 hours.

The three coated prisms will then be placed in the 50 percent humidity room to cure for 28 days prior to testing.

Test specimens shall show no flaking, cracking, spalling or loss of bond when tested for an average of 50 cycles in accordance with ASTM C 666, "Method of Test for Resistance of Concrete to Rapid Freezing and Thawing".

Evaluation Time (5 months)

**GENERAL:**

Upon completion of the evaluation, the submitter will be notified in writing concerning the results of the evaluation and whether the product 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 product submittal. The Department reserves the right to re-evaluate any product or individual material at any time. A Certificate of Analysis (CA) of the material shall be submitted annually 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 annually or when there is a change in the manufacturing representative responsible for the material.

**PROJECT ACCEPTANCE REQUIREMENTS:**

The inclusion of any product on the Approved Materials List is not blanket approval for its use. All products, regardless of prior approval, shall be sampled in accordance with the Materials Sampling Manual.

**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
- Failure to supply current contact information for the material representative in accordance with this procedure.

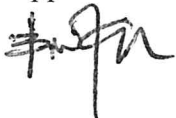
**REQUALIFICATION:**

Any material which has been disqualified and 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**

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