

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

ZINC PAINT SYSTEMS

MATERIAL SPECIFICATION REFERENCE:

DOTD Standard Specifications, Subsection 811, Painting and Protective Coatings
DOTD Standard Specifications, Subsection 1008.02.

This reference covers two and three coat paint systems utilizing zinc rich primers.

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/material/product
- Product Data Sheets
- Safety Data Sheet
- Manufacturer's specifications
- NTPEP Product Evaluation Data
- Sample

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.

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

One pint for each component of paint shall be submitted for laboratory evaluation.

All containers shall be labeled showing:

- Manufacturers brand name
- Lot number or batch number
- Date of manufacture

PRELIMINARY REQUIREMENTS CONTINUED:

AASHTO National Transportation Products Evaluation Program (NTPEP) Product Evaluation

Coatings systems shall be evaluated for performance through NTPEP for Structural Steel Coatings. Submission of system/material/products through AASHTO/NTPEP is a continuous process. Manufacturers may submit systems at any time.

After completion of the performance testing and laboratory evaluation the Manufacturer will be required to submit 'baseline' values for each system/material/product of the coatings system prior to supplying projects in Louisiana.

TEST REQUIREMENTS:

Laboratory Testing

All tests to be performed in accordance with the requirements of the following:

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>Specification Acceptance¹</u>
Pigment Content	ASTM D 2698	Target Value \pm 2.0%
Density	ASTM D 1475	Target Value \pm 0.25 lbs/gal
Solids Content	ASTM D 2369	Target Value \pm 2.0%
Non-volatile in Vehicle Content	ASTM D 2698	Target Value \pm 2.0%
Viscosity, Ku	ASTM D 562	Target Value \pm 5 KU
Dry to Touch	ASTM D 1640	Target Value \pm 10%
Dry Through	ASTM D 1640	Target Value \pm 10%
Sag, Lenetta	ASTM D 4400	Target Value \pm 10%
Infrared Spectrum	DOTD TR 610	²
X-ray Diffraction	ASTM D 5380	²

¹ Target Values shall be established by the Materials Section upon qualification of the paint system.

² Standards for infrared spectrum and x-ray diffraction shall be kept on file and compared to project samples for acceptance purposes.

TEST REQUIREMENTS CONTINUED:

The topcoat shall be tinted to match the standard “Louisiana Gray” topcoat or federal color # 36463 from Federal Standard 595C. Color chips of “Louisiana Gray” are available from the Materials and Testing Section.

Evaluation Time (1 Month)

Performance Evaluation

The performance evaluation shall be performed in accordance with AASHTO R 31. The paint system shall meet the acceptance criteria listed in the latest Northeast Protective Coating Committee (NEPCOAT) Acceptance Criteria for New and 100% Bare Existing Steel for Bridges. The latest acceptance criteria can be found on the NEPCOAT website at www.nepcoat.org under the Qualified Products for Protective Coatings for New and 100% Bare Existing Steel for Bridges document.

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 must be notified in writing of any change from the original system submittal. The Department of Transportation and Development reserves the right to re-evaluate any system at any time. A Certificate of Analysis (CA) of the system 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 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 Approved Materials List is not blanket approval for its use. All systems regardless of prior approval, shall be sampled in accordance with the Materials Sampling Manual.

DISQUALIFICATION:

Any system 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 verification samples in accordance with 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



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Approved 05/24/17

BRIAN OWENS, P.E.
DOTD MATERIALS ENGINEER ADMINISTRATOR