

# **QPL 40: PAVEMENT SEALERS AND TREATMENTS**

## **SECTION A: STANDARD FOG SEALS**

### **GENERAL**

This evaluation procedure outlines the Department's approval process for the use of pavement preservation standard fog sealers

### **SPECIFICATIONS**

- TDOT Standard Specification 402.03 – Prime Coat, Equipment
- TDOT Standard Specification 403 – Tack Coat
- TDOT Standard Specification 904.03 – Bituminous Materials, Emulsified Asphalts

### **PROCEDURES**

Standard fog seals shall be emulsified bituminous or similar material capable of being placed with a standard asphalt distributor as described in TDOT standard specifications 402.03, paragraph 3.

Products meeting the above requirements will be presented to the Materials and Tests Asphalt Section which will make a recommendation as to whether the product will be added to the Qualified Products List.

A completed Product Evaluation Form, Safety Data Sheets (if applicable), product data information, a sample of the product being tested, and manufacturer's specifications must be submitted to the Division of Materials and Tests.

Product approval will be based on a field evaluation—typically 6 months to 1 year.

# **QPL 40: PAVEMENT SEALERS AND TREATMENTS**

## **SECTION B: HIGH PERFORMANCE FOG SEALS**

### **GENERAL**

This evaluation procedure outlines the Department's approval process for the use of pavement preservation high performance fog seals (polymer or rubber modified)

### **SPECIFICATIONS**

- TDOT Standard Specification 402.03 – Prime Coat, Equipment

### **PROCEDURES**

High performance fog seals shall be hot-applied or emulsified bituminous or similar material capable of being placed with a standard asphalt distributor as described in TDOT Standard Specification 402.03, paragraph 3. High performance fog seals shall seal and preserve pavements in a manner which is superior to standard fog sealing materials.

Products meeting the above requirements will be presented to the Materials and Tests Asphalt Section which will make a recommendation as to whether the product will be added to the Qualified Products List.

A completed Product Evaluation Form, Safety Data Sheets (if applicable), product data information, a sample of the product being tested, and manufacturer's specifications must be submitted to the Division of Materials and Tests.

Product approval will be based on a field evaluation—typically 6 months to 1 year.

# **QPL 40: PAVEMENT SEALERS AND TREATMENTS**

## **SECTION C: REJUVENATING SEALERS**

### **GENERAL**

This evaluation procedure outlines the Department's approval process for the use of pavement preservation rejuvenating sealers

### **SPECIFICATIONS**

- TDOT Standard Specification 402.03 – Prime Coat, Equipment

### **PROCEDURES**

Rejuvenating sealers shall be a combination of bituminous or similar material and a rejuvenating material capable of being placed with a standard asphalt distributor as described in TDOT standard specifications 402.03, paragraph 3. Rejuvenating sealers shall be capable of partially restoring the existing pavement while concurrently sealing and preserving the pavement's integrity.

Products meeting the above requirements will be presented to the Materials and Tests Asphalt Section which will make a recommendation as to whether the product will be added to the Qualified Products List.

A completed Product Evaluation Form, Safety Data Sheets (if applicable), product data information, a sample of the product being tested, and manufacturer's specifications must be submitted to the Division of Materials and Tests.

Product approval will be based on a field evaluation—typically 6 months to 1 year.

# **QPL 40: PAVEMENT SEALERS AND TREATMENTS**

## **SECTION D: PAVEMENT REJUVENATORS**

### **GENERAL**

This evaluation procedure outlines the Department's approval process for the use of pavement preservation pavement rejuvenators.

### **SPECIFICATIONS**

- TDOT Standard Specification 402.03 – Prime Coat, Equipment

### **PROCEDURES**

Pavement rejuvenators shall be composed of a rejuvenating material capable of being placed with a standard asphalt distributor as described in TDOT standard specifications 402.03, paragraph 3. Pavement rejuvenators shall be capable of partially restoring the existing pavement's integrity.

Products meeting the above requirements will be presented to the Department's Pavement Sealers Committee which will make a recommendation as to whether the product will be added to the Qualified Products List.

A completed Product Evaluation Form, Safety Data Sheets (if applicable), product data information, a sample of the product being tested, and manufacturer's specifications must be submitted to the Division of Materials and Tests.

Product approval will be based on a field evaluation—typically 6 months to 1 year.

# **QPL 40: PAVEMENT SEALERS AND TREATMENTS**

## **SECTION E: BITUMINOUS PAVEMENT TREATMENTS**

### **GENERAL**

This evaluation procedure outlines the Department's approval process for the use of pavement preservation bituminous pavement treatments sealers (polymer or rubber modified)

### **SPECIFICATIONS**

- TDOT Standard Specification 402.03 – Prime Coat, Equipment
- TDOT Standard Specification 403 – Tack Coat
- TDOT Standard Specification 904.03 – Bituminous Materials, Emulsified Asphalts

### **PROCEDURES**

Bituminous pavement treatments shall be composed of various materials which may include:

- Rejuvenating materials
- Bituminous or similar materials
- Aggregates
- Fibers
- Other materials that preserve or promote the integrity of the pavement surface being treated

Bituminous pavement treatments may be placed with standard highway paving equipment and bituminous distributors or specialty equipment defined by the manufacturer or supplier of the treatment. Bituminous pavement treatments shall be capable of restoring the existing pavement's integrity in a manner which is superior to all other treatments described and listed under QPL 40, Pavement Sealers and Treatments.

Products meeting the above requirements will be presented to the Materials and Tests Asphalt Section which will make a recommendation as to whether the product will be added to the Qualified Products List.

A completed Product Evaluation Form, Safety Data Sheets (if applicable), product data information, a sample of the product being tested, and manufacturer's specifications must be submitted to the Division of Materials and Tests.

Product approval will be based on a field evaluation—typically 6 months to 1 year.

# **QPL 40: PAVEMENT SEALERS AND TREATMENTS**

## **SECTION F: TRACKLESS TACK COATS**

### **GENERAL**

This evaluation procedure outlines the Department’s approval process for bituminous material, either emulsified or hot-applied, used as a “trackless” tack coat for bituminous paving in the state of Tennessee.

### **SPECIFICATIONS**

- TDOT Standard Specification 402.03 – Prime Coat, Equipment
- TDOT Standard Specification 403.05B – Applying Emulsified Asphalt, Test Strip
- TDOT Standard Specification 904.03 – Bituminous Materials, Emulsified Asphalts
- TDOT Standard Specification 904.03-1(a), (b), and (c) – Test Requirements for Emulsified Asphalts

### **PROCEDURE**

A completed Product Evaluation Form, Safety Data Sheets (if applicable), product data information, a sample of the product being tested, and manufacturer’s specifications must be submitted to the Division of Materials and Tests.

Product approval will be based on a field evaluation—typically 6 months to 1 year.

Any producer manufacturing trackless tack must have a test strip applied one year ahead of approval of the trackless tack material. This test strip must be completed in accordance with Section 403.05.B. An Engineer from HQ Materials and Tests must be present during test-strip application to visually observe that the tack is not tracking when subjected to both truck traffic and the paving operation.

A minimum of three cores must be taken for shear testing of the tack layer in accordance with Section 403.05.A. Cores must consist of both the new asphalt layer and the underlying layer of pavement. These can be the same cores required for the project as long as they are taken from the test strip area.

A one-gallon sample of the tack coat used for the test section shall be collected at the time of paving. An additional one-gallon sample must be collected at the end of the year prior to officially adding the trackless tack to the QPL.

Manufacturers are required to submit their product testing requirements (Table 904.03-1) and the product application temperature range.

A quality control plan for the product must be submitted and approved by the State Bituminous Engineer prior to the product being officially approved.

## QPL 40: PAVEMENT SEALERS AND TREATMENTS

Any change in formulation and/or specifications must be communicated to the State Bituminous Engineer and the State Product Evaluation Engineer and may be grounds for a new evaluation period.

Product	Item No.	Acceptable Substitute For
Emulsion	403-02.01	403-01
Hot Applied	403-02.02	403-01 403-02.01 403.02