Georgia Department of Transportation
Office of Materials and Testing

Standard Operating Procedure (SOP) 47

Approval of Non-Tracking Tack

I. General

It is the responsibility of the Bituminous Construction Branch of the Office of Materials and Testing to monitor the quality of all Bituminous Materials on Georgia Department of Transportation (GDOT) projects. Qualified Products List 7 (QPL 7) is maintained to reference Approved Sources of Bituminous Materials. Sources of Bituminous Materials that appear on this list have been evaluated by the Office of Materials and Testing for their capability of meeting the appropriate Georgia Department of Transportation Specifications. This SOP was developed to detail the process used in the evaluation and approval/disapproval of Non-Tracking Tack material used in the construction of Asphaltic Concrete pavements.

II. Prerequisite for Approval

A. Request for Authorization to Supply Performance Graded Binders

The Manufacturer/Supplier shall request authorization in writing to the Office of Materials and Testing to supply Non-Tracking Tack.

B. Submission of Samples

Samples of the Non-Tracking Tack material being evaluated, obtained in accordance with Georgia Sampling Procedure (GSP) 10 "Sampling Procedures for Bituminous Materials", must be submitted to the Bituminous Control Laboratory at Forest Park, Georgia for laboratory testing.

C Application of Test Sections

Upon notification from the Bituminous Branch that the submitted sample(s) have met GDOT specification requirements for laboratory material testing, the Non-Tracking Tack material will be allowed for use in test sections. It is the material Manufacturer/Supplier's responsibility to partner with GDOT approved asphaltic concrete producer(s)/contractor(s) to provide suitable projects on which their material may be evaluated. A minimum of three (3) test sections must be evaluated prior to approval consideration. These test sections shall be placed on separate projects. Individual circumstances may require additional test sections prior to approval. The Non-Tracking Tack Manufacturer/Supplier, in conjunction with the asphaltic concrete producer(s)/contractor(s), shall provide in writing the detailed specifics for all test sections including:

1. List of each GDOT Project the Non-Tracking Tack will be used on, including project description and work schedule. The length and quantity of material used in the test section(s) including the location (milepost or station numbers) must be provided.
2. Contact information for the contractor representative that is responsible for the project.
3. Availability to attend an informal meeting to discuss Department expectations and policies.

D. Test Section Requirements

The test sections shall consist of the following:

1. Placement of Non-Tracking Tack for a minimum 1500 ft. full lane width.
2. Measure the tack application rate according to ASTM D 2995 "Standard Practice for Estimating Application Rate of Bituminous Distributors". The measured application rate shall be within range specified in Sections 400 or 413.

3. Obtain samples of the tack material from the on-site distributor in accordance with GSP 10 "Sampling Procedure for Bituminous Materials". Ensure conformance to Specification requirements referred to in Sections 820, 822 and 824.
4. Cored specimens will be obtained for shear testing in accordance with GDT 57. The overall core thickness including asphaltic concrete overlay and underlying asphaltic concrete layer thickness retrieved by coring shall be not less than 51 mm (2 inches) and not greater than 152.4 mm (6 inches). The overlay thickness shall not be less than 25.4 mm (1 inch). Do not use a test section that includes surface treatment or leveling at the shear interface.
5. The asphalt distributor shall be maintained in satisfactory operational condition and be capable of its intended function at all times during production.

E. Non-tracking Tack Test Section Placement

1. The Non-Tracking Tack shall be sprayed in accordance with application rates specified in Sections 400 and 413. Any Non-Tracking Tack Manufacturer/Suppliers' recommended variance of specified spread rates should be documented and applied.
2. The actual application spread rate shall be determined and documented using ASTM D 2995 "Standard Practice for Estimating Application Rate of Bituminous Distributors"
3. After curing for a maximum of 30 minutes, the in-place tack shall show no evidence of tracking under construction equipment or traffic.
4. Allow the in-place test section to cure for a minimum of thirty (30) days, obtain five (5) 150 mm (5.9 inch) diameter sized cores from random locations within each test section. Determine random locations according to GDT-73 "Random Selection and Acceptance Testing of Asphaltic Concrete". Conduct shear testing according to GDT-57 "Determining the Bond Strength Between Layers of an Asphalt Pavement". The average bond strength of the five (5) cores shall be 100 PSI or greater for the test section to be considered passing.

III. Test Section Requirements

The test sections shall consist of the following:

1. Placement of Non-Tracking Tack for a minimum 1500 ft. full lane width.
2. Measure the tack application rate according to ASTM D 2995 Standard Practice for Estimating Application Rate of Bituminous Distributors. The measured application rate shall be within range specified in Sections 400 or 413.
3. Obtain samples of the tack material from the on-site distributor in accordance with GSP 10 "Sampling Procedure for Bituminous Materials". Ensure conformance to Specification requirements referred to in Sections 820, 822 and 824.
4. Cored specimens will be obtained for shear testing in accordance with GDT 57. The overall core thickness including asphaltic concrete overlay and underlying asphaltic concrete layer thickness retrieved by coring shall be not less than 51 mm (2 inches) and not greater than 152.4 mm (6 inches). The overlay thickness shall not be less than 25.4 mm (1 inch). Do not use a test section that includes surface treatment or leveling at the shear interface.
5. The asphalt distributor shall be maintained in satisfactory operational condition and be capable of its intended function at all times during production.

IV. Non-tracking Tack Test Section Placement

1. The Non-Tracking Tack shall be sprayed in accordance with application rates specified in Sections 400 and 413. Any Non-Tracking Tack Manufacturer/Suppliers' recommended variance of specified spread rates should be documented and applied.
2. The actual application spread rate shall be determined and documented using ASTM D 2995 "Standard Practice for Estimating Application Rate of Bituminous Distributors"
3. After curing for a maximum of 30 minutes, the in-place tack shall show no evidence of tracking under construction equipment or traffic.
4. Allow the in-place test section to cure for a minimum of thirty (30) days, obtain five (5) 150 mm (5.9 inch) diameter sized cores from random locations within each test section.

Determine random locations according to GDT-73 “Random Selection and Acceptance Testing of Asphaltic Concrete”. Conduct shear testing according to GDT-57 “Determining the Bond Strength Between Layers of an Asphalt Pavement”. The average bond strength of the five (5) cores shall be 100 PSI or greater for the test section to be considered passing.

V. Approval/Disapproval for listing on QPL-7 “Sources of Bituminous Materials”.

The Non-Tracking Tack Manufacturer/Supplier will be notified in writing of all laboratory and test section related testing results. If approved, the Office of Materials and Testing will provide the Manufacturer/Supplier a letter approving general use of their Non-Tracking Tack material for use on GDOT let projects. QPL 7 “Approved Sources of Bituminous Materials” will be updated to include the new Manufacturer/Supplier and/or Non-Tracking Tack product. QPL 7 will be published periodically, and as materials are added or removed from the list, notice will be given by letter. This list will designate the Manufacturer/Suppliers’ name, product, grade and type of material offered.

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State Materials Engineer

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Director of Construction