

GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF MATERIALS AND TESTING

Standard Operating Procedure (SOP) 17—Bituminous Acceptance of Miscellaneous Construction Items

I. General

As an aid to construction and maintenance personnel, the Office of Materials and Testing maintains a Qualified Products Manual. This Standard Operating Procedure provides guidelines to establish Qualified Products for use with miscellaneous construction items and governs the following Qualified Products Lists (QPL) which are included in this manual:

| QPL | Item |
|---------|---|
| QPL 26 | Heat Stable Anti-Stripping Additives |
| QPL 39 | Asphalt Releasing Agents |
| QPL 41 | Hydrated Lime |
| QPL 65 | Emulsified Latex |
| QPL 67 | Non Chlorinated Asphalt Extractants |
| QPL 77 | Fiber Stabilizing Additives |
| QPL 81 | Mineral Fillers |
| QPL 97 | Reinforcement Fiber for Asphaltic Concrete Mixtures |
| QPL 98 | Ground Tire Rubber (GTR) Workability Additives for Asphalt Rubber Binders |
| QPL 106 | Ground Tire Rubber (GTR) for Asphalt Rubber Binders |

Products that appear on these lists have been evaluated by the Office of Materials and Testing and meet the appropriate Georgia Department of Transportation Specification. Any of these products may be used without sampling or pre-testing provided the field engineer determines the product is uncontaminated and undamaged. However, products normally shipped as packaged units such as epoxy adhesives, special surface coatings for concrete surfaces, etc., may not be used if the units have been partially expended prior to arrival on the project. The field engineer must ascertain that the construction item is the same material identified on the appropriate Qualified Products List and will acknowledge receipt of these items in the project diary or as required by the Construction Manual.

It shall be the responsibility of the State Bituminous Construction Engineer to monitor products covered by SOP 17-Bituminous. The Office of Materials and Testing will update the Qualified Products Manual a minimum of every twelve months. Representatives from the Office of Materials and Testing, at unscheduled times, may visit the producer's plant or warehouse or construction or maintenance projects to obtain random samples of items covered by this SOP. Products which consistently produce test results that significantly vary from those established by the manufacturer and verified by the Office of Materials and Testing shall be removed from the Qualified Products Manual. Products that meet the current requirements of the Specifications but do not perform satisfactorily in the field shall be removed from the Qualified Products Manual. Products that meet current requirements of the Specifications but were not submitted for annual evaluation upon request by the Department will be removed from the Qualified Products Manual. Removal from the Manual shall prohibit the use of the product in Department of Transportation work until the acceptability of the product is re-established. Products that have not been used in Georgia Department of Transportation Construction or Maintenance

work for a period of twelve months will, at the Department's discretion, be removed from the Qualified Products Manual. The Department reserves the right to limit the number of products for each type material from any manufacturer.

The Department may reject any product deemed by the State Materials Engineer to be hazardous to personnel in handling and testing.

II. Requirements

A. Manufacturers and Producers

Manufacturers and Producers shall adhere to the following requirements:

Samples may be submitted for Initial Evaluation at any time. Products covered by SOP 17, currently approved by the Department and listed in the Department's Qualified Products Manual shall be submitted for Annual Evaluation. Annual samples shall be submitted in accordance with SOP 17 to the Office of Materials and Testing by the date listed for each QPL as detailed below.

- QPL 26 by March 1
- QPL 39 by May 1
- QPL 41, 65, and 81 by August 1
- QPL 67 by September 1
- QPL 77 by June 1
- QPL 97 by January 1
- QPL 98 by March 1 (Bituminous Control Laboratory – Attention: Bituminous Control Engineer)
- QPL 106 by March 1

When submitting a sample, the Office of Materials and Testing requires the following:

A Product Evaluation Form (attached) shall be submitted for initial and annual evaluation, listing each sample submitted for evaluation.

A Materials Safety Data Sheet (MSDS)/Safety Data Sheets (SDS) and a Warranty letter, as described in Section II-C, shall be submitted with each sample for initial and annual evaluation.

A Production Quality Control Plan for each product shall be submitted for the initial evaluation or upon request.

The sample and required documentation shall be sent to the following address:

**Georgia Department of Transportation
Office of Materials and Testing
15 Kennedy Drive
Forest Park, GA 30297-2599
Attn: Bituminous Special Projects Coordinator, Room 211**

B. Independent Lab Evaluation

Test results from a private lab are required on some items before the Office of Materials and Testing begins its evaluation. As a matter of information, any available test results, product data sheets, MSDS/SDS, and independent lab evaluation and certification shall be furnished when submitting a product for initial evaluation.

C. Annual Warranty

The manufacturer or producer shall submit an annual warranty for each product before being added to the Qualified Products Manual. The warranty shall be submitted on company letterhead and contain the following: Appropriate QPL warranty statement from Section III through Section IX followed by the additional statement below, signed by a person legally responsible to bind the company, and notarized.

The following additional warranty shall be included as the latter part of every warranty:

“We further warrant that material furnished to State of Georgia projects will be replaced without cost to the purchaser and State of Georgia when found not in conformity with any of the specified requirements. We accept full responsibility for determining the governing Specification for each order, provided we are given notice of revised Specifications, and we warrant that the material currently being furnished is identical in formulation, composition, and properties as the material originally submitted for source approval.”

D. Identification of Products

Brand name, type, or lot or batch number, date of manufacture, and any other pertinent information shall be identified on submitted products. The manufacturer shall conduct sufficient tests and maintain product control records to verify

that production is adequate to assure Specification compliance. The Manufacturer shall notify the Office of Materials and Testing of any change in formulation or composition of any of their products in the Qualified Products Manual and submit samples for re-evaluation.

E. Company Product Labels

Product labels shall be unique to the company wishing to list its products in the Qualified Products Manual; therefore, companies will not be allowed to list product labels other than their own. **The Department will not evaluate or list the same-labeled product in the Qualified Products Lists for multiple distributors, manufacturers, or producers.**

F. Initial or Annual Evaluation Submittals

Submittal of products for Initial Evaluation or Annual Evaluation shall be in accordance with this Standard Operating Procedure. The Department will not evaluate any improperly submitted products.

III. (QPL 26) Heat Stable Anti-Stripping Additives

Heat Stable Anti-Stripping Additives shall meet the current requirements of Section 831 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

1 pint (473 ml) of each type

B. Warranty Letter:

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is a Liquid Anti-Stripping Additive meeting the current requirements of Section 831 of the Georgia Department of Transportation Specifications. This material shall be manufactured under strict formulation and quality control. Changes of formulation will constitute a new product which will be submitted for approval under a new product name.”

“(Company Name) agrees to abide by and cooperate with the Georgia Department of Transportation’s control procedures as established in the Standard Operating Procedure for Monitoring the Quality of Bituminous Mixtures (SOP 2).”

“This certificate of guarantee supersedes all previous certificates and shall remain in effect as long as this company continues to furnish material to or for Georgia Department of Transportation construction or maintenance projects under the privileges of the Approved List of Suppliers of Anti-Strip Additives for use in Asphaltic Concrete (QPL 26).”

Include remainder of Warranty from Section II-C.

IV.(QPL 39) Asphalt Releasing Agents

Asphalt Releasing Agents shall not be detrimental to the Asphaltic Concrete Mixture meeting the requirements of Section 400 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

1 quart (946 ml) of each type.

B. Warranty Letter:

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is an Asphalt Releasing Agent which meets the current requirements of the Georgia Department of Transportation Specifications in that it is not detrimental to Asphaltic Concrete Mixtures.”

Include remainder of Warranty from Section II-C.

V.(QPL 41) Hydrated Lime

Hydrated Lime used as an ingredient in Asphaltic Concrete or any other construction item shall meet the current requirements of Section 882 of the Georgia Department of Transportation Specifications. This Specification requires that the materials meet AASHTO M303, Type I (high calcium).

A. Sample Requirements

Minimum of 3 lbs (1.4 kg)

B. Warranty Letter:

“This is to warrant that the Hydrated Lime manufactured and sold by (Company Name / Location) meets the current requirements of AASHTO M 303, Type I.”

Include remainder of Warranty from Section II-C.

VI. (QPL 65) Emulsified Latex

Emulsified Latex for modifying Asphalt Cement used in Hot Mix Asphaltic Concrete paving mixtures shall meet the current requirements of Section 409 of the Georgia Department of Transportation Specifications, when specified. Emulsified Latex for modifying Asphalt Cement used in surface treatment shall meet the requirements of Section 824.2.02.A.1 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

1 gal (3.8 L).

B. Warranty Letter

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is an Emulsified Latex meeting the current requirements of Sections 409, when specified and 824.2.02.A.1 of the Georgia Department of Transportation Specifications.”

Include remainder of Warranty from Section II-C.

VII.(QPL 67) Non Chlorinated Asphalt Extractants

Non chlorinated asphalt extractants shall be able to remove asphalt from bituminous mixes.

A. Sample Requirements

½ gal (1.9 L).

B. Warranty Letter

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is a Non Chlorinated Asphalt Extractant which is able to remove asphalt from bituminous mixes.”

Include remainder of Warranty from Section II-C.

VIII. (QPL 77) Fiber Stabilizing Additives

Fiber Stabilizing Additives are generally used to stabilize the asphalt film surrounding aggregate particles in order to reduce drain-down of the asphalt cement and to enhance mix properties. Fiber Stabilizing Additives shall meet the current requirements of Section 819 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

1 lb (454 g) of each type

B. Warranty Letter:

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is a Fiber Stabilizing Additive satisfying the current requirements of Section 819 of the Georgia Department of Transportation Specifications.”

Include remainder of Warranty from Section II-C.

IX. (QPL 81) Mineral Fillers

Mineral Fillers added as a separate ingredient for use in bituminous paving mixtures shall consist of finely divided mineral matter such as rock dust, slag dust, hydraulic cement, fly ash, or other suitable matter. Mineral Fillers shall meet the current requirements of Section 883 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

One pound (454 grams) of each type

B. Warranty Letter

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is a Mineral Filler which meets the current requirements of Section 883 of the Georgia Department of Transportation Specifications.”

Include remainder of Warranty from Section II-C.

X. (QPL 97) Reinforcement Fiber for Asphaltic Concrete Mixtures

Reinforcement Fiber added as a separate ingredient for use in bituminous paving mixtures shall consist of •Materials in a blend of Polyolefin and Poly para-phenylene-terephthalamide, or para-aramid, or aramid fibrillated & monofilament fibers. Reinforcement fibers for Asphaltic Concrete shall meet the current requirements of Special Provision 819 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

One pound (454 grams) of each type

B. Warranty Letter

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is a Reinforcing Fiber Additive for Asphaltic Concrete Mixtures satisfying the current requirements of Special Provision 819 of the Georgia Department of Transportation Specifications.”

Include remainder of Warranty from Section II-C.

XI. (QPL 98) Ground Tire Rubber (GTR) Workability Additives Used in Asphalt Rubber Binders (PG 76-22 ARB)

Workability Additives used with Ground Tire Rubber (GTR) and added as a separate ingredient for use with Performance Graded 76-22 ARB in bituminous paving mixtures shall be evaluated and approved by the Bituminous Branch of the Office of Materials and Testing. The evaluation process shall include laboratory testing, in conjunction with field trials placing Asphaltic Concrete Mixtures incorporating PG 76-22 ARB. ARB incorporating Ground Tire Rubber (GTR) Workability Additives shall meet the current requirements of Section 820 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

One pound (454 grams) of each type

B. Certificate of Analysis (COA)

Submit a COA showing supplier laboratory tests results for compliance with Section 820.

C. Warranty Letter

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is a Ground Tire Rubber (GTR) Additives for Asphaltic Concrete Mixtures satisfying the current requirements of Section 820 of the Georgia Department of Transportation Specifications.”

Include remainder of Warranty from Section II-C.

XII. (QPL 106) Ground Tire Rubber (GTR) Used in Asphaltic Rubber Binders (ARB)

Ground Tire Rubber (GTR) used to produce Performance Graded 76-22 (ARB) in bituminous paving mixtures shall be evaluated and approved by the Bituminous Branch of the Office of Materials and Testing. The evaluation process shall include laboratory testing for compliance with Section 829, in conjunction with field trials placing Asphaltic Concrete Mixtures incorporating PG 76-22 ARB). PG 76-22 ARB incorporating Ground Tire Rubber (GTR) shall meet the current requirements of Section 820 of the Georgia Department of Transportation Specifications.

A. Sample Requirements

Two pound (908 grams) of each type

B. Certificate of Analysis (COA)

Submit COAs showing supplier laboratory tests results for compliance with Sections 820 and 829.

C. Warranty Letter

“This is to warrant that the product (Product Trade Name) as manufactured and sold by (Company Name) is a Ground Tire Rubber (GTR) product used in Asphalt Rubber Binders satisfying the current requirements of Sections 820 and 829 of the Georgia Department of Transportation Specifications.”

Include remainder of Warranty from Section II-C.

State Materials Engineer

Director of Construction