Revised: March 27, 2023

# GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF MATERIALS AND TESTING

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

# I. General

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

QPL	Item
QPL 26	Heat Stable Liquid Anti-Stripping Additives (LASA)
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 OMAT and meet the appropriate Georgia Department of Transportation (GDOT) Specifications. Any of these products may be used without sampling or pre-testing provided the engineer determines the product is uncontaminated, undamaged, and unopened/expanded. 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 engineer shall ascertain that the construction item is the same material identified on the appropriate QPL and shall 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 Manager to monitor products covered by SOP 17 C. OMAT will update the QPL a minimum of every twelve months. Representatives from OMAT, at unscheduled times, may visit the producer's plant or warehouse, 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 OMAT shall be removed from the QPL. Products that meet the current requirements of the Specifications but do not perform satisfactorily in the field shall be removed from the QPL. Products that meet current requirements of the Specifications but were not submitted for annual evaluation upon request by OMAT will be removed from the QPL. Removal from the List shall prohibit the use of the product in GDOT work until the acceptability of the product is re-established and added back on the QPL. Products that have not been used in GDOT Construction or Maintenance projects for a period of twelve months will, at OMAT's discretion, be removed from the QPL. OMAT reserves the right to limit the number of products for each type of 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 C, currently approved by OMAT and listed on the GDOT's QPL shall be submitted for Annual Evaluation. Annual samples shall be submitted in accordance with SOP 17 C to OMAT by the date listed for each QPL as detailed below.

- QPL 26 by March 1 (Asphalt Design Laboratory-Attention: Bituminous Special Projects Coord.)
- QPL 39 by May 1 (Asphalt Design Laboratory Attention: Bituminous Special Projects Coord.)
- QPL 41, 65, and 81 by August 1 (Asphalt Design Laboratory Attention: Bituminous Special Projects Coord.)
- QPL 67 by September 1 (Asphalt Design Laboratory <u>Attention: Bituminous Special Projects Coord.</u>)
- QPL 77 by June 1 (Asphalt Design Laboratory <u>Attention: Bituminous Special Projects Coord.</u>)
- QPL 97 by January 1 (Asphalt Design Laboratory <u>Attention: Bituminous Special Projects Coord.</u>)
- QPL 98 by March 1 (Bituminous Control Laboratory <u>Attention: Bituminous Control Manager</u>)
- QPL 106 by March 1 (Bituminous Control Laboratory <u>Attention: Bituminous Control Manager</u>)

When submitting a sample, OMAT 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

#### **B.** Independent Lab Evaluation

Test results from a private lab are required on some items before OMAT 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 QPL. 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 OMAT of any change in formulation or composition of any of their products on the QPL and submit samples for re-evaluation.

# E. Company Product Labels

Product labels shall be unique to the company wishing to list its products on the QPL; therefore, companies will not be allowed to list product labels other than their own. <u>OMAT will not evaluate or list the same-labeled product in the QPL for multiple distributors, manufacturers, or producers.</u>

#### F. Initial or Annual Evaluation Submittals

Submittal of products for Initial Evaluation or Annual Evaluation shall be in accordance with this SOP 17 C. OMAT 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 and GDT 56 of the GDOT Specifications and procedures. Test results, from an independent laboratory accredited by AASHTO to perform the AASHTO procedures specified in GDT 56, must be submitted with each request for QPL 26 approval evaluation in accordance with subsection II.B.

#### A. Sample Requirements

One pint (473 milliliters) of each type

#### **B.** Warranty Letter:

"This is to warrant that the product (<u>Product Trade Name</u>) as manufactured and sold by (<u>Company Name</u>) 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 GDOT Specifications.

#### A. Sample Requirements

One quart (946 milliliters) of each type.

#### **B.** Warranty Letter:

"This is to warrant that the product (<u>Product Trade Name</u>) as manufactured and sold by (<u>Company Name</u>) 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 GDOT Specifications. This Specification requires that the materials meet AASHTO M303, Type I (high calcium).

# A. Sample Requirements

Minimum of three pounds (1.4 kilograms)

# **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 GDOT 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 GDOT Specifications.

#### A. Sample Requirements

One gallon (3.8 Liters).

#### **B.** Warranty Letter

"This is to warrant that the product <u>(Product Trade Name)</u> as manufactured and sold by <u>(Company Name)</u> 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 gallon (1.9 Liters).

# B. Warranty Letter

"This is to warrant that the product (<u>Product Trade Name</u>) as manufactured and sold by (<u>Company Name</u>) 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 GDOT Specifications.

# A. Sample Requirements

One pound (454 grams) of each type

#### **B.** Warranty Letter:

"This is to warrant that the product (<u>Product Trade Name</u>) as manufactured and sold by (<u>Company Name</u>) 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. (OPL 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 GDOT Specifications.

#### A. Sample Requirements

One pound (454 grams) of each type

# **B.** Warranty Letter

"This is to warrant that the product <u>(Product Trade Name)</u> as manufactured and sold by <u>(Company Name)</u> 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 GDOT of Transportation Specifications.

# A. Sample Requirements

One pound (454 grams) of each type

# **B.** Warranty Letter

"This is to warrant that the product <u>(Product Trade Name)</u> as manufactured and sold by <u>(Company Name)</u> 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) Workability Additives combined with Ground Tire Rubber (GTR) to produce Asphalt Rubber Binders (ARB)

Workability Additives, used as a separate ingredient, which is combined with GTR and then introduced to an asphalt binder to produce a Performance Graded (PG) 76-22 ARB in bituminous paving mixtures shall be evaluated and approved by the Bituminous Branch of OMAT. Test results, from an independent laboratory accredited by AASHTO, to perform the AASHTO procedures specified in Section 820 of GDOT's specifications, must be submitted with each request for QPL 98 approval evaluation. GDOT's evaluation process shall include laboratory testing, in conjunction with field trials placing Asphaltic Concrete Mixtures incorporating PG 76-22 ARB. ARB incorporating GTR Workability Additives shall meet the current requirements of Section 820 of the GDOT 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 <u>(Product Trade Name)</u> as manufactured and sold by <u>(Company Name)</u> 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 to produce Asphaltic Rubber Binders (ARB)

GTR used to produce PG 76-22 ARB in bituminous paving mixtures shall be evaluated and approved by the Bituminous Branch of OMAT. Test results, from an independent laboratory accredited by AASHTO to perform the AASHTO procedures specified in Section 820 of GDOT's specifications, must be submitted with each request for QPL 98 approval evaluation. GDOT's 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 GTR shall meet the current requirements of Section 820 of the GDOT 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 <u>(Product Trade Name)</u> as manufactured and sold by <u>(Company Name)</u> 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.			
St	tate Materials Engineer		
D D	virector of Construction		