

- 1.2. Laboratory Procedure 12 (LP-12) test result for foamed bitumen expansion ratio dated within 12 months of submittal
- 1.3. Laboratory Procedure 12 (LP-12) test result for foamed bitumen half-life dated within 12 months of submittal
- 1.4. Optimum foaming water content
- 1.5. Proposed HMA production temperature range
2. For WMA additive technology:
 - 2.1. Name of technology
 - 2.2. Percent admixture by weight of binder and percent admixture by total weight of HMA as recommended by the manufacturer
 - 2.3. Methodology for inclusion of admixture in laboratory produced HMA
 - 2.4. Proposed HMA production temperature range
3. California Test 371 test results for dry strength for untreated plant produced HMA
4. California Test 371 test results for tensile strength ratio for untreated plant produced HMA
5. California Test 204 test results for plasticity index of untreated plant produced HMA test result determined under California Test 204 is below the specified HMA mix design requirements
6. California Test 371 test results for treated plant produced HMA if untreated plant produced HMA test result determined under California Test 371 is below the specified HMA mix design requirements
7. AASHTO T 324 (Modified) test results data showing number of passes with rut depth for plant produced HMA
8. AASHTO T 324 (Modified) test results data showing number of passes at inflection point for plant produced HMA.

Prepaving Conference

With your JMF submittal, submit a list of names participating in the prepaving conference. Identify each participant's name, employer, title, and role in the production and placement of WMA or HMA with WMA technology.

Tests and Samples

At production start-up and within ± 1000 tons of the halfway point of production of HMA produced using WMA technology, submit samples split from your HMA production sample for California Test 371 and AASHTO T 324 (Modified) test to the Engineer and the Transportation Laboratory, Attention: Moisture Test.

With the JMF submittal, at JMF verification, at production start-up, and for each 10,000 tons of HMA produced, submit the California Test 371 test results and AASHTO T 324 (Modified) test results for mix design and production to the Engineer and electronically to:

Minimum Quality Control

Quality characteristic	Test method	Minimum sampling and testing frequency	Requirement			Sampling location	Maximum reporting time allowance
			HMA Type				
			A	B	RHMA-G		
Moisture susceptibility (minimum dry strength, psi)	California Test 371	First production day and 1 per every 10,000 tons	120	120	120	Loose mix behind the paver. See California Test 125	15 days
Moisture susceptibility (tensile strength ratio, %)	California Test 371		Report Only	Report Only	Report Only		
Hamburg wheel track (minimum number of passes at 0.5 inch average rut depth) PG-58 PG-64 PG-70 PG-76	AASHTO T 324 (Modified)	First production day and 1 per every 10,000 tons	10,000 15,000 20,000 25,000	10,000 15,000 20,000 25,000	15,000 20,000 25,000 --	Loose mix behind the paver. See California Test 125	7 days ^a
Hamburg wheel track (inflection point minimum number of passes) PG-58 PG-64 PG-70 PG-76	AASHTO T 324 (Modified)		10,000 10,000 12,500 15,000	10,000 10,000 12,500 15,000	10,000 12,500 15,000 --		

Notes:

^a Submit test data and 1 tested sample set.

If requirements for Quality Control / Quality Assurance process are specified in the section titled "Hot Mix Asphalt" or "Rubberized Hot Mix Asphalt (Gap Graded)" of these special provisions, the minimum sampling and testing frequency for California Test 371 is replaced with the minimum sampling and testing frequency for California Test 371 shown in the table above.

Engineer's Acceptance

The Engineer samples HMA for acceptance testing and tests for the following additional quality characteristic:

Contract No. XX-XXXXXX

CCO No. XX

Attachment

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2. One 1-pint sample
3. Infrared analysis including copy of absorption spectra

Submit a certified copy of test results and a MSDS for each LAS lot.

Submit a Certificate of Compliance under Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for each LAS shipment. With each certificate also submit:

1. Your signature and printed name
2. Shipment number
3. Material type
4. Material specific gravity
5. Refinery
6. Consignee
7. Destination
8. Quantity
9. Contact or purchase order number
10. Shipment Date

Submit proportions for LAS as part of the JMF submittal specified in Section 39-1.03, "Hot Mix Asphalt Mix Design Requirements," of the Standard Specifications. If you change the brand or type of LAS, submit a new JMF.

For each job or delivery of LAS, submit one 1/2-pint sample to the Transportation Laboratory. Submit shipping documents to the Engineer. Label each LAS sampling container with:

1. LAS type
2. Application rate
3. Sample date
4. Contract number

At the end of each day's production shift, submit production data in electronic and printed media. Present data on electronic media in tab delimited format. Use line feed carriage return with one separate record per line for each production data set. Allow sufficient fields for the specified data. Include data titles at least once per report. For each mixing operation type, submit in order:

1. Batch Mixing:
 - 1.1. Production date
 - 1.2. Time of batch completion
 - 1.3. Mix size and type
 - 1.4. Each ingredient's weight
 - 1.5. Asphalt binder content as percentage of dry aggregate weight