

Table 6-1.6 Hot Mix Asphalt Material Acceptance

Material or Product	Test	Test No.	Sample Size Container Type	Location for Sampling	Sampling Frequency	Testing Frequency	Comments
HMA Aggregate	Gradation ¹ (Sieve Analysis)	CT 202, CT 105, Laboratory Procedure 9	Combined <u>two 20-lb.</u> canvas bags ²	HMA Plant	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, Standard or Method processes: Minimum 2 per day of paving, For QC/QA process: 1 random for every 3,750 tons of paving	
	Sand Equivalent	CT 217	or Batch <u>40 lbs.</u> (proportioned per bin percentages)	HMA Plant or before Lime Treatment	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, Standard or Method processes: Minimum 2 per day of paving, For QC/QA process: 1 random for every 3,750 tons of paving	
	LA Rattler (100 Rev.)	CT 211	Combined <u>four 40-lb.</u> canvas bags ³ or Batch <u>160 lbs.</u> (proportioned per bin percentages)	HMA Plant or before Lime Treatment	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 50,000 tons or less of paving	
	LA Rattler (500 Rev.)	CT 211		HMA Plant or before Lime Treatment	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 50,000 tons or less of paving	
	Percent of Crushed Particles (Coarse)	CT 205		HMA Plant or before Lime Treatment	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 50,000 tons or less of paving	
	Percent of Crushed Particles (Fine)	CT 205		HMA Plant or before Lime Treatment	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 50,000 tons or less of paving	
	Fine Aggregate Angularity	AASHTO T304, Method A		HMA Plant or before Lime Treatment	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 50,000 tons or less of paving	Report Only, Do not use test result for acceptance
	Flat and Elongated Particles	ASTM D 4791		HMA Plant or before Lime Treatment	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 50,000 tons or less of paving	Report Only, Do not use test result for acceptance

- Notes: 1. When RAP is used, adjust gradation by the correction factor determined in Laboratory Procedure 9.
 2. Store one 20-lb. canvas bag for dispute resolution.
 3. Store two 40-lb. canvas bags for dispute resolution.

Table 6-1.6 Hot Mix Asphalt Material Acceptance

Material or Product	Test	Test No.	Sample Size Container Type	Location for Sampling	Sampling Frequency	Testing Frequency	Comments
HMA Mix	Moisture Content	CT 370	10 lbs sealed metal container	loose mix behind paver	Production Start- Up Evaluation, one per project	Production Start-Up Evaluation, and minimum 1 per project during production	Samples should be tested within 1-hour of sampling
	Asphalt Binder Content	CT 379 or CT 382	140 lbs. cardboard boxes ^{1,2}	loose mix behind paver	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, For Standard or Method process: minimum 1 random per day, For QC/QA: minimum 1 random for every 3,750 tons of paving.	
	Stability	CT 366		loose mix behind paver	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 10,000 tons of paving	
	Maximum Theoretical Density	CT 309		loose mix behind paver	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, For Standard or QC/QA processes: minimum 1 random test per day of paving	Testing Frequency can be modified per CT 375 Part 5D-5
	Air Void Content	CT 367		loose mix behind paver	1 for each 750 tons, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random for every 25,000 tons of paving	
	Voids Filled with Asphalt	Laboratory Proceure 3		loose mix behind paver	Production Start- Up, every 25,000 tons	Production Start-Up Evaluation, and minimum 1 random for every 25,000 tons of paving	Report only if the adjustment for asphalt binder content target value is less than $\pm 0.3\%$
	Voids in Mineral Aggregate	Laboratory Proceure 2		loose mix behind paver	Production Start- Up, every 25,000 tons	Production Start-Up Evaluation, and minimum 1 random for every 25,000 tons of paving	Report only if the adjustment for asphalt binder content target value is less than $\pm 0.3\%$
	Dust Proportion	Laboratory Proceure 4		loose mix behind paver	Production Start- Up, every 25,000 tons	Production Start-Up Evaluation, and minimum 1 random for every 25,000 tons of paving	Report only if the adjustment for asphalt binder content target value is less than $\pm 0.3\%$
	Moisture Sensitivity	CT 371		additional 150 lbs. sealed metal container	loose mix behind paver	Production Start- Up ³ , 1 per project	Only for QC/QA process: Production Start-Up Evaluation, and minimum 1 per project during paving

Notes: 1. Need twelve - 8X8X3 boxes or eight - 8½X8½X4½ boxes. Store six - 8X8X3 or four - 8½X8½X4½ for dispute resolution.

2. For Open Graded Friction Course, 40-lbs. sample size and use metal containers in place of cardboard boxes.

3. Contractor ships 75 lbs. to district material laboratory for testing, and 75 lbs. to METS for testing.

Table 6-1.6 Hot Mix Asphalt Material Acceptance

Material or Product	Test	Test No.	Sample Size Container Type	Location for Sampling	Sampling Frequency	Testing Frequency	Comments
HMA Pavement	Percent of Maximum Theoretical Density HMA \geq .15 ft	CT 375	4-inch or 6-inch diameter cores ¹	Random locations per CT 375, Part 3, Section C. "TEST SITE LOCATION"	1 for every 250 tons	Production Start-Up Evaluation, For Standard or QC/QA process: every 250 tons of paving	
	Smoothness	CT 526	N/A	pavement	Contractor determines when to profilograph the pavement	Engineer reviews profiles	Contractor submits electronic copy of profile information and pavement profiles.
	Smoothness	<i>Standard Specifications</i> Section 39-1.1B Straightedge	N/A	pavement	Daily	During HMA placement or as soon as possible after placement.	Engineer documents project compliance

Note: 1. Store cores after testing for dispute resolution.

Material or Product	Test	Test No.	Sample Size Container Type	Location for Sampling	Sampling Frequency	Testing Frequency	Comments
Asphalt Binder ¹ Approved COC Supplier	<i>Standard Specifications</i> Section 92	<i>Standard Specifications</i> Section 92	<u>1</u> wide-mouth quart can	asphalt line at HMA plant	1 per day	Production Start-Up Evaluation, and minimum 1 random per 5 samples	
Asphalt Binder ¹ Non-Approved COC Supplier	<i>Standard Specifications</i> Section 92	<i>Standard Specifications</i> Section 92	<u>1</u> wide-mouth quart can	sample port on tanker truck	each truckload	each truckload	Test Non-Approved COC supplied asphalt binder before using.

Note: 1. Sample and test base Asphalt Binder used in Asphalt Rubber Binder

Table 6-1.6 Hot Mix Asphalt Material Acceptance

Material or Product	Test	Test No.	Sample Size Container Type	Location for Sampling	Sampling Frequency	Testing Frequency	Comments
Asphalt Rubber Binder	<i>Standard Specifications</i> Section 39-1.02D	<i>Standard Specifications</i> Section 39-1.02D	<u>1</u> wide-mouth <u>quart</u> can	asphalt line at HMA plant	1 per batch, 1 per day minimum	Production Start-Up Evaluation, and minimum 1 random per 5 samples	
Asphalt Modifier	<i>Standard Specifications</i> Section 39-1.02D	ASTM D 445, ASTM D 92, ASTM D 2007	<u>1</u> wide-mouth <u>quart</u> can	sample port on tanker truck	each truckload	1 random per project	
Crumb Rubber Modifier	Sampling and Testing Crumb Rubber Modifier	Laboratory Procedure 10, CT208, and ASTM D 297	CRM Scrap Tire <u>two 2.5-lbs.</u> gallon zip lock bags CRM High Natural <u>two 2.5-lb.</u> gallon zip lock bags	CRM bulk bag	each truckload	1 random per project	

Material or Product	Test	Test No.	Sample Size Container Type	Location for Sampling	Sampling Frequency	Testing Frequency	Comments
Tack Coat Asphalt Binder	<i>Standard Specifications</i> Section 92	<i>Standard Specifications</i> Section 92	<u>1</u> wide-mouth <u>quart</u> can	spray bar on distributor truck	each truckload	1 random per project	
Tack Coat Asphaltic Emulsion	<i>Standard Specifications</i> Section 94	<i>Standard Specifications</i> Section 94	<u>1 gallon</u> plastic jug	spray bar on distributor truck	each truckload	1 random per project	