

WSDOT FOP FOR WAQTC/AASHTO T 168¹

SAMPLING OF HOT MIX ASPHALT PAVING MIXTURES FOP FOR WAQTC T 168

Significance

Testing bituminous paving mixtures in the field begins with obtaining and preparing the sample to be tested. Standardized procedures for obtaining a representative sample have been established. Producing strong, durable, reliable pavement in roadways requires careful sampling and accurate testing.

Technicians must be patient and follow these procedures. If one considers that the specifications require quality tests to be made on only a small portion of the total material placed, the need for a truly representative sample is apparent. For this reason, every precaution must be taken to obtain a sample that is truly representative of the entire batch and then to protect that sample from contamination and physical damage.

Scope

This procedure covers the sampling of bituminous paving mixtures from HMA plants, haul units, and roadways in accordance with AASHTO T 168. Sampling is as important as testing, and every precaution must be taken to obtain a truly representative sample.

Apparatus

- Shovel
- Sample containers: such as cardboard boxes, metal cans, stainless steel bowls, or other agency-approved containers
- Mechanical Sampling Device

Sample Size

Sample size depends on the test methods specified by the agency for acceptance.

WSDOT requires a minimum of four times the amount required for testing. This should be approximately 125 lbs.

Sampling

• General

1. The material shall be inspected to determine variations. The supplier/contractor shall provide one of the following:
 - a. A mechanical sampling device attached to the HMA plant.
 - b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle for sampling HMA.

¹ This FOP is based on WAQTC T 168 and has been modified per WSDOT standards. To view the redline modifications, contact WSDOT Quality Systems Manager at (360)709-5412.

2. Place dense graded mixture samples in cardboard boxes or stainless steel bowls or other agency approved containers. Place open graded mixture samples in stainless steel bowls. Do not put open graded mixture samples in boxes until they have cooled to the point that bituminous material will not migrate from the aggregate.

Note 2: Care shall be taken to prevent contamination of bituminous mixes by dust or other foreign matter, and to avoid segregation of aggregate and bituminous materials.

- **Attached Sampling Devices**

Some agencies require mechanical sampling devices for hot mix asphalt (HMA) and cold feed aggregate on some projects. These are normally permanently attached devices that allow a sample container to pass perpendicularly through the entire stream of material or divert the entire stream of material into the container. Operation may be hydraulic, pneumatic, or manual and allows the sample container to pass through the stream twice, once in each direction, without overfilling. Special caution is necessary with manually operated systems since a consistent speed is difficult to maintain and non-representative samples may result. Check agency requirements for the specifics of required sampling systems.

- **Sampling from Truck Transports Haul Units**

1. Obtain samples in four approximately equal increments from haul units.
2. Obtain each increment from approximately 12 in. (300 mm) below the surface, in each of the four quadrants of the load.
3. Combine the increments to form a sample of the required size.

- **Sampling from Roadway Prior to Compaction (Plate Method)**

WSDOT has deleted this section.

3. Temperature of Mix

Using a verified thermometric device, check and record temperature immediately upon obtaining sample.

Identification and Shipping

1. Identify sample containers as required by the agency.
2. Ship samples in containers that will prevent loss, contamination, or damage.
3. Refer to the sample identification requirements in FOP for WSDOT Test Method 712.

Performance Exam Checklist

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Participant Name _____ Exam Date _____

Procedure Element	Yes	No	
1. The tester has a copy of the current procedure on hand?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Containers of correct type and ample size available?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Samples from truck transports taken from four quadrants at approximately depth 12 inches?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Temperature of mix checked?	<input type="checkbox"/>	<input type="checkbox"/>	
5. Sample size meets agency requirements?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Sample identified as required?	<input type="checkbox"/>	<input type="checkbox"/>	

First attempt: Pass Fail Second attempt: Pass Fail

Signature of Examiner _____

Comments:

