

## WSDOT FOP FOR WAQTC/ AASHTO T 40

### *Sampling Bituminous Materials*

#### **Significance**

The quality of bituminous materials has a tremendous impact on a roadway project. The grade of binder selected is based on a number of factors, including local temperature extremes and characteristics of expected traffic. Using a grade of binder material other than that specified will have serious impacts on roadway performance and durability.

#### **Scope**

The procedure covers obtaining samples of liquid bituminous materials in accordance with AASHTO T 40. Sampling of solid and semi-solid bituminous materials (included in AASHTO T 40) is not covered here.

Agencies may be more specific on exactly who samples, where to sample, and what type of sampling device to use.

WSDOT personnel need to observe the contractor's personnel sampling to assure that proper sampling procedures are followed.

If proper sampling procedures are not followed it shall be noted on the sample transmittal "Proper sampling procedures not followed." See WSDOT Standard Specification 1-06.

#### **Procedure**

1. Coordinate sampling with contractor ~~constructor~~ or supplier.
2. Use appropriate safety equipment and precautions.
3. Allow a minimum of 1 gal (4 L) to flow before obtaining samples.
4. Obtain samples of:
  - Asphalt binder from Hot Mix Asphalt (HMA) Plant from the line between the storage tank and the mixing plant or the storage tank while the plant is in operation, ~~or from the delivery truck.~~
  - Cutback and Emulsified asphalt from distributor spray bar or application device; or from the delivery truck before it is pumped into the distributor. Sample emulsified asphalt at delivery or prior to dilution.

## Containers

Sample containers must be new, and the inside may not be washed or rinsed. The outside may be wiped with a clean, dry cloth.

All samples shall be put in 1 qt (1 L ) containers and properly identified on the outside of the container with contract number, date sampled, data sheet number, brand and grade of material, and sample number. Include lot and subplot numbers when appropriate.

**Note:** The filled sample container shall not be submerged in solvent, nor shall it be wiped with a solvent saturated cloth. If cleaning is necessary, use a clean dry cloth.

- Emulsified asphalt: Use wide-mouth plastic jars with screw caps. Place tape around the seam of the cap, to keep the cap from loosening and spilling the contents. Protect the samples from freezing since water is a part of the emulsion.
- Asphalt binder & Cutbacks: Use metal cans.

Standard sample labels (WSDOT Form 350-016) shall be completely filled out and attached to each sample container.

## Performance Exam Checklist

### Sampling Bituminous Materials WAQTC FOP for AASHTO T 40

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. Appropriate containers used?		
a. Wide-mouth plastic containers (emulsified).	<input type="checkbox"/>	<input type="checkbox"/>
b. Metal cans (all other bituminous liquids).	<input type="checkbox"/>	<input type="checkbox"/>
3. Containers not washed or rinsed on inside?	<input type="checkbox"/>	<input type="checkbox"/>
4. Minimum of 1 gallon allowed to flow before sample taken?	<input type="checkbox"/>	<input type="checkbox"/>
5. Material obtained at correct location?		
a. Line between storage tank and mixing plant or the storage tank (HMA plants).	<input type="checkbox"/>	<input type="checkbox"/>
b. Spray bar or application device, if not diluted (distributors).	<input type="checkbox"/>	<input type="checkbox"/>
c. From delivery vehicle or prior to dilution, if diluted (distributors).	<input type="checkbox"/>	<input type="checkbox"/>

Sample taken by: Contractor  WSDOT

First attempt: Pass  Fail

Second attempt: Pass  Fail

Signature of Examiner \_\_\_\_\_

Comments:

