
Standard Practice for Sampling Asphalt Materials

AASHTO Designation: R 66-16 (2024)¹

Technically Revised: 2016

Reviewed but Not Updated: 2024

Technical Subcommittee: 2a, Emulsified Asphalts



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AASHTO

1. SCOPE
- 1.1.

This standard applies to sampling asphalt materials at production facilities, at storage facilities, or at the point of delivery. Samples may be taken from tanks, stockpiles, vehicles, or containers used for the storage or shipping of asphalt materials.
- 1.2.

The values stated in SI units are to be regarded as the standard. The inch-pound units are presented in parentheses for informational purposes and may not be exact equivalents.
- 1.3.

This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. SIGNIFICANCE AND USE
- 2.1.

Sampling is a critical step in determining the quality of the material being sampled. Care shall be exercised to ensure that samples are representative of the material in the line or vessel being sampled.
- 2.1.1.

Alterations of the materials being sampled, such as the use of filters or screens in the sampling devices or nozzles, shall not occur because such alterations render the sample to not be representative of the material remaining in the line or vessel being sampled.

3. INTERFERENCES
- 3.1.

Contamination of samples can occur because of residual amounts of other types and grades of asphalt remaining in the line or vessel being sampled. Contamination can also occur due to the presence of cleaning agents, either in the line or vessel being sampled or remaining on the sampling devices used.

4. SIZE OF SAMPLES
- 4.1.

The minimum sample size for liquid asphalt material shall be as follows:
- 4.1.1.

1 L (1 qt) of asphalt binder, or
- 4.1.2.

1 L (1 qt) of emulsified asphalt.
- 4.2.

The sample size of semisolid or solid materials shall be as follows:

- 4.2.1. From barrels, drums, or cakes—1 to 2 kg (2 to 3 lb).

5. CONTAINERS

5.1. *Type of Containers:*

- 5.1.1. Containers for liquid asphalt materials, except emulsified asphalt, shall be double-seal friction-top cans, square cans with screw tops, or small-mouth cans with screw caps.

- 5.1.2. Containers for emulsified asphalt samples shall be plastic wide-mouth jars or bottles with screw caps.

5.2. *Size of Containers:*

- 5.2.1. The size of the container shall correspond to the required amount of sample.



Figure 1—Examples of Sample Containers

6. PROTECTION AND PRESERVATION OF SAMPLES

- 6.1. Sample containers shall be new. The top and container shall fit together tightly.
- 6.2. Take care to prevent the sample from becoming contaminated. Immediately after filling it, tightly seal the container.
- 6.3. 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 only a clean, dry cloth.
- 6.4. Emulsified asphalt samples shall be protected from freezing.

Note 1—When sampling emulsified asphalt, do not sample material under pressure. Pressure may allow air entrapment, which could result in erroneous test results. Bubbles in the material are one