

Reducing Samples of Hot-Mix Asphalt to Testing Size

AASHTO Designation: T 328-05



1. SCOPE

- 1.1. This practice outlines methods for the reduction of large samples of hot-mix asphalt (HMA) to the appropriate size for testing, employing techniques that are intended to minimize variations in the measured characteristics between the test samples so selected and the large sample.
- 1.2. The values stated in SI units are to be regarded as standard.
- 1.3. *This standard does not purport to address all of the safety problems, 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. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standards:*
- T 168, Sampling Bituminous Paving Mixtures
 - T 248, Reducing Samples of Aggregate to Testing Size
- 2.2. *ASTM Standards:*
- C 702, Practice for Reducing Samples of Aggregate to Testing Size
 - D 979, Standard Practice for Sampling Bituminous Paving Mixtures
 - D 8, Standard Terminology Relating to Materials for Roads and Pavements

3. TERMINOLOGY

- 3.1. *mastic*—a mixture of asphalt binder and fine mineral material.

4. SIGNIFICANCE AND USE

- 4.1. Specifications for hot-mix asphalt mixtures require sampling portions of the material for testing. Other factors being equal, larger samples will tend to be more representative of the total supply. This method provides procedures for reducing the large sample obtained in the field or produced in the laboratory to a convenient size for conducting a number of tests to describe the material and measure its quality in a manner that the smaller test sample portion is most likely to be a representation of the larger sample, and thus of the total supply. The individual test methods provide the minimum quantity of material necessary.

5. SELECTION OF METHOD

- 5.1. The selection of a particular method to reduce the large sample to test size depends largely on the amount of the large sample. It is recommended that for a large amount of material a mechanical splitter be employed whenever possible, reducing the time needed and to minimize the loss of temperature. To further reduce the sample size, a quartering method can be utilized.

6. SAMPLING

- 6.1. Obtain samples of HMA according to T 168 or as required by individual test methods. When additional tests are to be conducted, the user shall be satisfied that the initial size of the field sample is adequate to accomplish all intended tests. Use similar procedures for HMA produced in the laboratory.

7. METHOD A—MECHANICAL SPLITTER

- 7.1. *Apparatus:*

- 7.2. *Mechanical Splitter*—The splitter shall have four equal width chutes, which will discharge the material into four appropriate size containers. The splitter shall be designed with a receiving hopper that will hold the HMA field sample until a handle releases the material to fall through a divider and is distributed into four equal portions. The splitter shall be designed so that the HMA field sample will flow smoothly and freely through the divider without loss of materials. (See Figures 1 to 3.)

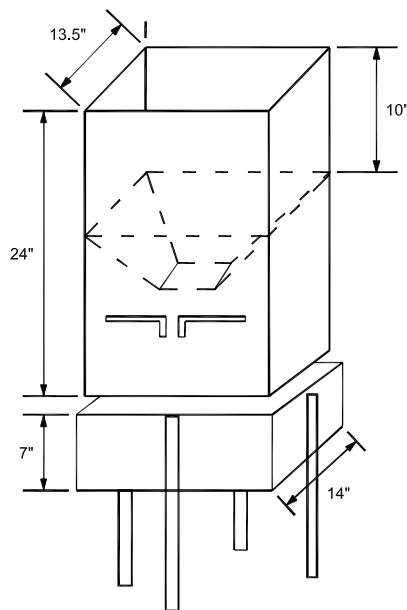


Figure 1—Mechanical Splitter