

Kentucky Method 64-415-083  
Revised ~~1/10/03~~02/21/08  
Supersedes KM 64-415-032  
Dated ~~12/13/01~~01/10/03

## NON-VOLATILE TEST FOR ASPHALT MASTIC

1. SCOPE: This test method covers measuring the resulting loss of volatile material when a sample of asphalt mastic is heated in an oven at 221-230 °F for 24 hours.
2. APPARATUS:
  - 2.1. Provide an electrically-heated oven, conforming to all oven requirements in ASTM E 145, *Standard Specification for Gravity-Convection and Forced-Ventilation Ovens*, Type II B, capable of maintaining a test temperature of 221-230 °F.
  - 2.2. Provide a disposable tin cup, capable of holding a 10-g sample. Ensure the cup is able to maintain a near-constant weight when exposed to heat (230 °F) for 24 hours.
  - 2.3. Provide a balance conforming to AASHTO M231, *Weighing Devices Used in the Testing of Materials*, (Table 1) Class B.
3. SAMPLE: Ensure that the size of the test sample is approximately 10 g.
4. PROCEDURE:
  - 4.1. Weigh the tin cup to the nearest 0.001 g, and record the weight as “B”.
  - 4.2. Place approximately 10 g of the material to be tested in the previously-weighed tin cup.
  - 4.3. Weigh the cup and material to the nearest 0.001 g, and record the weight as “A”.
  - 4.4. Place the cup in an oven maintained at 221-230 °F for a period of 24 hours.
  - 4.5. Remove the cup from the oven, and allow it to cool to room temperature in a dessicator.
  - 4.6. Weigh the cup and material to the nearest 0.001 g, and record the weight as “C”.

5. CALCULATIONS: Calculate the loss of volatile material according to the following equation:

$$\text{Percent of Non - Volatile Material} = 100 \left( \frac{C - B}{A - B} \right)$$

where:

A = the weight of the tin cup and material;

B = the weight of the tin cup; and

C = the weight of the tin cup and material after 24 hours in the oven.

6. REPORT: Report the percent of non-volatile material to the nearest whole percent.

APPROVED

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DIRECTOR  
DIVISION OF MATERIALS

DATE 02/21/08

APPROVED

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Director

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Division of Materials

DATE 1/10/03

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