GDT 52

A. Scope

For a complete list of GDTs, see the Table of Contents.

Use this test method to determine the amount of moisture in the fine and coarse aggregates in the hot bins of an asphalt plant in the field.

B. Apparatus

The apparatus consists of the following:

1. Balance: Use a balance with a capacity of 4.4 lb (2 kg) or more and sensitive to a 0.001 lb (0.5 g) or less.
2. Container: Use a sufficient number of metal containers of about 1gal (3.79 L) capacity that can be made airtight to procure a sample from each hot bin.
3. Drying Device: Use a stove or oven that can heat the samples to a temperature of 225 °F to 250 °F (107.2 °C to 121.1 °C).

C. Sample Size and Preparation

1. Take a representative sample that weighs more than 2 lbs (1,000 g) from beneath the gate of each hot bin.
2. Weigh each empty metal container and matching lid. Record these weights as the weight of container and lid.
3. Place each sample into separate 1 gal (3.79 L), airtight metal containers.
4. Close the container immediately.

D. Procedures

1. Weigh the metal container with the samples.
2. Subtract the weight of each container and matched lid from the weight of the sample plus the container.
3. Record the net weight as the weight of sample before drying.
4. Remove the lids from the containers.
5. Dry the samples in the containers to a constant weight at a temperature of 225 °F to 250 °F (107.2 °C to 121.1 °C).
6. Remove the containers from the stove or oven.
7. Replace the matched lids.
8. Weigh the sample with the container and lid.
9. Record the weight of the sample after drying.

E. Calculations

$$\% \text{ Moisture} = \frac{S1 - S2}{S2} \times 100$$

where:

S1 = Weight of sample before drying

S2 = Weight of sample after drying

F. Report

Report the percent moisture in the Plant Diary.