



Volumetrics

Section 7 – Moisture of Asphalt Mix

MOISTURE CONTENT OF MIX AASHTO T 329-22 (WYDOT 413)

- **This procedure determines the moisture content of a sample of mix (hot plant mix, recycled hot plant mix, warm plant mix) by evaporation.**
- **This is a procedure to determine whether the amount of water in the mix exceeds the specified amount.**

Apparatus

- 1. Scale capable of 0.0001 lb [0.1 g] accuracy**
- 2. Heat source, such as an electric or gas hot plate, electric heat lamps, or a ventilated convection oven capable of maintaining the temperature surrounding the sample at 230 ± 9 °F**
- 3. Insulated safety gloves**
- 4. Cylinder cans, 6 inch in diameter x 12 inch tall, with lids**
- 5. Round or square batch pan, approximately 15 inch diameter or square x3½ inch deep**
- 6. Round sample pan for use in oven, 12 inch diameter x 3 inch deep**
- 7. Flat bottomed scoop, approximately 4 inch wide x 8 inch long 1½ inch deep**

PROCEDURE

Perform this before substantial heat loss occurs:

- 1. Obtain sample of the mix. Follow AASHTO T 168 or WYDOT 410.0 for sampling locations.**
- 2. Transport samples according to WYDOT 411.0.**

PROCEDURE (CONTINUED)

3. Empty the sample into the batch pan.

a. Weigh the sample pan.

b. Using a hot scoop, place 1 to 3 lb in the sample pan. Weigh the pan and sample.

c. Place the sample in the heat source and dry thoroughly. Reweigh the pan and sample. The sample is dry when 5 minutes of additional heating causes less than 0.1% additional weight loss.

Very rapid heating may cause some particles to explode, resulting in some particle loss. If a source of heat other than the temperature controlled oven is used, stir the sample during drying to accelerate the operation and prevent localized overheating.

CALCULATIONS

Sample pan weight A 1.8682 lb

Sample pan and wet mixture weight B 3.4320 lb

Sample pan and dried mixture weight C 3.3991 lb

Mixture dry weight C - A = D 1.5309 lb

Moisture Weight B - C = E 0.0329 lb

Moisture Content F = E / D * 100 2.15%

Report the results on Form T-158F.