

**BULK SPECIFIC GRAVITY
OF
COMPACTED BITUMINOUS MIXTURES
USING
PARAFFIN-COATED SPECIMENS
AASHTO T 275
(METHOD A)**

APPARATUS

- [] Balance, sufficient capacity for sample, readable to 0.1 g or better, in accordance with AASHTO M 231
- [] Suspension apparatus
 - [] Center of balance pan
 - [] Suspension wire of smallest practical size
 - [] Holder and sample completely immersed
- [] Water Bath
 - [] Equipped with overflow outlet to maintain constant water level
 - [] Deep enough to completely immerse holder and sample
 - [] Thermostatically controlled to maintain the water at $77 \pm 0.9^{\circ}\text{F}$
 - [] Paraffin (Specific Gravity known)

PROCEDURE

- [] Specimen dried overnight at $125 \pm 5^{\circ}\text{F}$ and weighed at 2-hour drying intervals until constant weight (Note 1) is achieved (not necessary for recently molded specimens)
- [] Specimen dried in vacuum chamber
- [] Specimen cooled to room temperature at $77 \pm 9^{\circ}\text{F}$ and weighed
- [] Specimen coated on all surfaces with melted paraffin sufficiently thick to seal all voids
- [] Specimen allowed to cool in air to room temperature at $77 \pm 9^{\circ}\text{F}$ for at least 30 minutes
- [] Specimen weighed
- [] Specimen immersed in water at $77 \pm 1.8^{\circ}\text{F}$ for 3-5 minutes and weight recorded

Note 1 -- Constant weight is defined as the weight at which further drying at $125 \pm 5^{\circ}\text{F}$ does not alter the weight by more than 0.05 percent.

CALCULATIONS

[] Bulk specific gravity is calculated correctly to three decimal places as follows:

$$\text{Bulk Specific Gravity} = \frac{A}{D - E - \left(\frac{D - A}{F}\right)}$$

where:

- A = weight of dry specimen in air, g
- D = weight of dry specimen plus paraffin, g
- E = weight of dry specimen plus paraffin in water, g
- F = specific gravity of paraffin at 77 ± 1.8°F (use 0.9)

- NA - Not Applicable
- X - Requires Corrective Action
- √ - Satisfactory

Acceptance Technician

INDOT

Date

Comments: _____
