

later as a container for the sample when weighed in air.

4. Roll the wet sample in a large absorbent cloth until all excess water is removed, although the surfaces of the particles still appear to be damp. The larger fragments or particles may be individually wiped. Exercise care to avoid evaporation of absorbed water during the operation of surface drying.
5. Immediately after it has reached a saturated surface-dry (SSD) condition place the sample in the dry pail and weigh in air. Record this mass, M_3 .
6. Remove the pail and sample from the balance and add enough water to the pail to completely inundate the sample. Stir the inundated sample with the spoon, rod or hand in order to remove any entrapped air.
7. Add enough water to almost fill the pail and attach the pail to the balance by means of the hook-ended rod. Lower and immerse the pail and sample to within ± 25 mm of the same level where the pail was when filled with water only (see Paragraph 3 under D). Exercise care when immersing to see that no air is trapped under the pail. Weigh the pail, rod and sample in water and record as mass, M_4 .

E. CALCULATIONS

1. The mass of the sample in water, M_w , is equal to the mass of the pail, rod and sample in water minus the mass of the pail and rod in water $M_w = M_4 - M_2$.

The mass of the sample in saturated SSD condition in air, M_a , is equal to the mass of the SSD sample and dry pail in air minus the mass is the dry empty pail:

$$M_a = M_3 - M_1$$

3. Calculate the bulk specific gravity (SSD) from the following formula:

$$\text{Bulk Sp. Gr. (SSD)} = M_a / (M_a - M_w)$$

4. Duplicate determinations should check to within ± 0.02 .

F. SAFETY AND HEALTH

Prior to handling, testing or disposing of any waste materials, testers are required to read: Part A (Section 5.0), Part B (Sections: 5.0, 6.0 and 10.0) and Part C (Section 1.0) of Caltrans Laboratory Safety Manual. Users of this method do so at their own risk.

REFERENCE:

AASHTO Designation: T 85

End of Text (California Test 224 contains 2 pages)

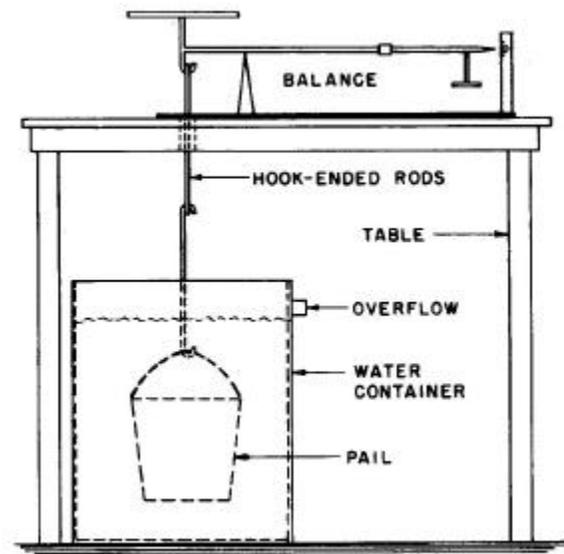


FIGURE 1