

RELATIVE DENSITY OF COARSE AGGREGATE

LS-604-R30 _____

C127-15 _____

APPARATUS:

1. Sample Container (One of the following):
 - (a) Wire basket of 3.35 mm mesh or finer? _____
 - or (b) Bucket of approx. equal breadth and height, capacity 4 to 7L, for up to 37.5mm material (if needed)? _____
 - or (c) Larger container that prevents trapping air when submerged for plus 37.5mm material (if needed)? _____

2. Water Tank:
 - (a) Capable of completely submerging the sample container? _____

3. Suspension Apparatus:
 - (a) Of suitable design and in good condition? _____
 - (b) Center of suspension apparatus properly located with respect to center of balance pan or other point of contact with balance? _____

4. Immersion water, temperature is $23 \pm 2^\circ\text{C}$? _____
5. Large absorbent cloth? _____
6. Balance, sensitive, readable, and accurate to 0.05% of sample weight of 0.5g (greater)? _____
7. Sieves, 4.75mm or other sizes as needed? _____
8. Oven, maintains $110 \pm 5^\circ\text{C}$? _____

COMMENTS:

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PROCEDURE:

1. Sample obtained by ASTM C702? _____
2. Screened on 4.75mm sieve (or 2.36mm sieve if sample contains substantial quantities of minus 4.75mm material)? _____
3. Obtain 2 sub-samples of approximately 3000g _____
4. Prepared sample soaked in room temperature water for 17 ± 2 hrs. (24 ± 4 hrs. ASTM) _____
5. Dust and coatings thoroughly washed from surface of particles? _____
6. Sample placed in container and set in water bath at $23 \pm 1.7^\circ\text{C}$ (Mass C)? _____
7. Care taken to remove any entrapped air? _____
8. Sample weighed in water to nearest 0.5g, all subsequent masses to nearest 0.5g? _____
9. Placed on large absorbent cloth? _____
10. Rolled in cloth so all visible films of water are removed? _____
11. Evaporation avoided? _____
12. Sample weighed immediately? (Mass B) _____
13. Dried to constant mass at $110 \pm 5^\circ\text{C}$? _____
14. Cool at room temperature for 1-3 hours and weigh (Mass A) _____
15. Lab says proper book formulas used in calculations? _____

Use of Laboratory Control Aggregate

1. Laboratory has a supply of control aggregate? Source: Stoney Lake Quarry _____
2. Control sample tested every 10 samples or at least every week when samples tested? _____
3. Control sample mean relative density is 2.690, range is 2.681 to 2.699? _____
4. Control sample mean absorption is 0.39%, range is 0.29 to 0.49%? _____
5. Control chart showing data for last 20 samples of reference material? _____
 - Mean relative density for last 20 samples _____
 - Low relative density for last 20 samples _____
 - High relative density for last 20 samples _____
 - Mean absorption for last 20 samples _____
 - Low absorption for last 20 samples _____
 - High absorption for last 20 samples _____

COMMENTS: