

PERCENT CRUSHED PARTICLES IN COARSE AGGREGATE

LS-607-R30 _____

APPARATUS

1. Balance: Readable to 1g or less, accurate to 0.1% of test load?..... _____

PROCEDURE

* Test samples for both Methods A & B obtained by MTO LS-600?..... _____

Preparation Method A

1. Sample separated into fractions according to LS-602?..... _____
2. Sample fraction (Passing 26.5mm - retained 4.75mm) reduced to approximate masses in TABLE 1?..... _____

TABLE 1

Largest particle size (>95% passing sieve)	Mass (minimum), g
26.5mm	1000
16.0mm	850
13.2mm	500
9.5mm	200
6.7	75

3. Reduced sample weighed to nearest 1g?..... _____

Preparation Method B

1. Sample separated into individual fractions in TABLE 2. Separated according to LS-602?..... _____
2. Sample prepared to individual minimum fraction masses in TABLE 2?..... _____
3. Individual fraction masses represent at least 5% of submitted sample?..... _____
4. Reduced fractions weighed to nearest 1g?..... _____

TABLE 2

Coarse Aggregate Fraction		Mass (minimum) , g
Passing	Retained	
26.5mm	19.0mm	200 particles minimum
19.0mm	13.2mm	1250
13.2mm	9.5mm	500
9.5mm	6.7mm	200
6.7mm	4.75mm	75

Procedure

1. Sample or each fraction spread on large, clear flat surface?..... _____
2. Separate asphaltic, glass or ceramic material?..... _____
3. Separate crushed concrete, included as crushed particles?..... _____
4. Particles separated into portions according to whether (host) particle is crushed , uncrushed , with or without cementations?..... _____
5. Weigh and record mass of each portion to nearest 1g?..... _____
6. Calculation for test sample (Method A) or each fraction (Method B)?..... _____

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LS-607-R29 _____

CALCULATIONS

$$\% \text{ Crushed Particles} = \frac{A + B}{A + B + C + D} \times 100$$

$$\% \text{ Cemented Particles} = \frac{B + D}{A + B + C + D} \times 100$$

Where: A = mass of crushed particles
B = mass of crushed cementations C = mass of uncrushed particles
D = mass of uncrushed cementations

7. Calculation for weighted average; Method B?..... _____

$$\text{Weighted \% Crushed Particles} = \frac{\sum (\text{Fraction \% Crushed} \times \text{ret Grading})}{100}$$

$$\text{Weighted \% Cemented Particles} = \frac{\sum (\text{Fraction \% Cemented} \times \text{ret Grading})}{100}$$

COMMENTS: