

Performance Examination - Aggregate

Standard Method of Test for Determining the Percentage of Fracture in Coarse Aggregate (AASHTO T 335-09 (2013))

Candidate Name: ______ NICET ID: ______

Apparatus	Trial 1	Trial 2
Balance Accurate and readable to within 0.1% of sample mass		
Sieves Conforming to E11		
Sample splitter Sample splitter as specified in R 76		

Method 1		
Nominal Maximum Particle Size, mm (in.)	Minimum Sample Mass Retained 4.75-mm (No.4) Sieve, g (Approx. lb)	
37.5 (1 1⁄2)	2500 (6)	
25.0 (1)	1500 (3.5)	
19.0 (¾)	1000 (2.2)	
12.5 (1/2)	700 (1.5)	
9.5 (¾)	400 (0.9)	
4.75 (No. 4)	200 (0.5)	

Procedures	Trial 1	Trial 2
Sample Preparation - Method 1		
1. Aggregate sampled in accordance with T2 and reduced in accordance with R76		
Sample dried sufficiently to obtain a clean separation of fine and coarse material in sieving operation		
3. Sample sieved over the 4.75-mm (No. 4) sieve, or another specified sieve, in accordance with R76		
4. Portion retained on sieve reduced to the appropriate size for the test using a splitter		
5. A minimum mass of the sample is as indicated in the table below (or slightly more than listed to account for additional mass that will be lost in washing procedure)		



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Procedures (continued)	Trial 1	Trial 2
Sample Preparation - Method 2 - Individual Size Fractions		
1. Aggregate sampled in accordance with T2 (D75) and reduced in accordance with R76		
 2. Sample dried sufficiently to obtain a clean separation of fine and coarse material in sieving operation. Sample meets one of the following criteria: A. a previously washed sample from the gradation determination (T11 and T27) B. aggregate is sieved according to T27 over the sieves listed in the specification for the material 		
3. The representative portion from each sieve selected by splitting or quartering to the size specified in the table below		

Method 2		
Nominal Maximum Particle Size, mm (in.)	Minimum Sample Mass Retained 4.75-mm (No.4) Sieve, g (Approx. lb)	
31.5 (1 ¼)	1500 (3.5)	
25.0 (1)	1000 (2.2)	
19.0 (3/4)	700 (1.5)	
16.0 (5/8)	500 (1.0)	
12.5 (1/2)	300 (0.7)	
9.5 (3/8)	200 (0.5)	
6.3 (1/4)	100 (0.2)	
4.75 (No. 4)	100 (0.2)	
2.36 (No. 8)	25 (0.1)	
2.00 (No. 10)	25 (0.1)	



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Procedures (continued)		Trial 2
1. Sample dried and cooled on a clean flat surface large enough to permit careful inspection of each particle		
2. Particle held so that the face is viewed directly (normal to the surface of the face)		
 Sample separated into three categories to aid in making the fracture determination Group 1 - fractured particles meeting the above criteria. Group 2 - particles not meeting specification criteria. Group 3 - questionable or borderline particles. 		
4. Mass of particles in each of the three categories determined		
5. If on any of the determinations more than 15% of the total mass of the sample is placed in the questionable category, is the determination repeated until no more than 15% is present in that category		

Calculation	Trial 1	Trial 2
Mass percentage of the fracture faces calculated to the nearest 1% according to the following equation:		
$P = [F + Q/2(F + Q + N)] \times 100$		

First Attempt: Pass: _____ Fail: ____ Second Attempt: Pass: _____ Fail: _____

Exam Administration: Remote _____ In-Person _____

Comments: