



Performance Examination - Aggregate

Standard Practice for Sampling Aggregate Products (AASHTO R 90-18)

Candidate Name: _____ NICET ID: _____

Procedures	Trial 1	Trial 2
Select two sampling methods and shipping samples		
Sampling from Flowing Aggregate Stream		
1. Select units to be sampled by an approved random method		
2. Obtain at least three equal increments, selected at random from the unit being sampled. Each increment took from an entire cross-section of the material as it is discharged		
3. Combine the three to form a field sample whose mass equals or exceeds the minimum requirements of the following table		

Aggregate Size	Recommended Min. Mass (kg)	Recommended Min. Mass (lb)
≤ 9.5 mm (3/8 in.)	10	22
12.5 mm (1/2 in.)	15	35
19.0 mm (3/4 in.)	25	55
25.0 mm (1 in.)	50	110
37.5 mm (1 ½ in.)	75	165
50 mm (2 in.)	100	220
63 mm (2 ½ in.)	125	275
75 mm (3 in.)	150	330
90 mm (3 ½ in.)	175	385

4. Take each increment from the entire cross section of the material as it is being discharged		
5. A pan of sufficient size to intercept the entire cross-section of the discharge stream and hold the required quantities without overflowing		
6. Using material retained on 9.5 mm (3/8 in.) or 4.75 mm (No. 4), as required, each size fraction present in an amount of 10% or more of original sample reduced according to R 76 until approximately		
Sampling from the Conveyor Belt	Trial 1	Trial 2
1. Select units to be sampled by an approved random method		
2. Obtain at least three equal increments, selected at random from the unit being sample		
3. Combine the three to form a field sample mass equals or exceeds the minimum requirements		
4. Stop the conveyor belt while the sample increments are being obtained		

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5. Use templates that conform to the shape of the belt and insert them such that the materials contained between them will yield an increment of the required weight		
Sampling from the Conveyor Belt (continued)	Trial 1	Trial 2
6. Carefully scoop all materials including fines between the templates into a suitable container		
7. Collect the fines on the belt with a brush and dustpan and add to the container		
Sampling from a Stockpile	Trial 1	Trial 2
1. Samples should be made up of at least three increments and taken from the top 1/3, midpoint and bottom 1/3 of the pile		
2. For coarse and mixed coarse and fine aggregate, use power equipment to develop a separate small sampling pile composed of material drawn from the main pile		
3. If power equipment is not available, insert a board shoved vertically into the pile just above the sampling point		
4. When sampling fine stockpiles, the outer layer should be removed and a sample taken from material beneath		
5. Fine aggregate: Optional 30-mm (1¼-in.) diameter sampling tube. Sample tube may be inserted into the pile at random locations to extract a minimum of five increments of fine material to form the sample		
Sampling from Transportation Units	Trial 1	Trial 2
1. Excavate three or more trenches across the transportation unit at random points that will represent the entire load		
2. The trench should be level and least 1 ft (0.3m) in width and in depth below the surface		
3. A minimum of three increments from equally spaced points along each trench will be taken		
4. For fine aggregate, the sample tube may be used		
Sampling from Roadway (Bases and Sub-bases)	Trial 1	Trial 2
1. Select units to be sampled by an approved random method		
2. Obtain at least three equal increments, selected at random from the unit being sampled		
3. Combine the three to form a field sample whose mass equals or exceeds the minimum Requirements		
4. Take all increments from the roadway for the full depth of the material; take care to exclude any underlying materials		
5. Clearly marked areas from which each increment is to be removed		

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Shipping Samples	Trial 1	Trial 2
1. Transport aggregate in bags or other containers so constructed as to preclude loss, contamination or damage to the contents from mishandling during shipment.		
2. Aggregate shipping containers clearly marked with suitable identification of field samples		

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

Exam Administration: Remote _____ In-Person _____

Comments:

Examiner Name: _____ Examiner Signature: _____ Date: _____