

HCMTCB AGGREGATES CERTIFICATION

KEY ELEMENTS LIST

Release Date: October 2024

PERFORMANCE CHECKLIST

AASHTO R 90 Sampling Aggregate Products

Sampling Coarse Aggregate

Procedure

- 1 Determine the time or location using?
- 2 Ensure equipment and containers are ___?
- 3 Field Sample Size - Coarse Aggregate - #57 (1in. Nom. Max.)

Show the evaluator the proper table and determine the minimum size field sample for the requested gradation.

Sampling From A Conveyor Belt

- 1 Isolate sample increment using . . . ?
- 2 If one increment is not sufficient?
- 3 Collect how much material from between templates?

Sampling From Conveyor Belt Discharge

- 1 Avoid sampling from ___?
- 2 Sampling device must pass through ___?
- 3 Material adhering to the sampling device is ___?

Sampling From Roadway - In Place

- 1 Sample after ___?
- 2 Sample before ___?
- 3 Increments of what depth?
- 4 Do what with underlying material?

PERFORMANCE CHECKLIST

AASHTO R 90 Sampling Aggregate Products

Sampling From Stockpiles

Power Pile

- 1 Direct operator to enter stockpile with bucket at least ____?
- 2 Do what with first bucketful?
- 3 Have operator back drag to make a ____?
- 4 Minimum number of increments?
- 5 Stay at least ____ from the edge.
- 6 Be sure to ____ underlying material.

Stockpile Face

- 1 Create horizontal surfaces with ____ faces.
- 2 Prevent sloughing by using ____.
- 3 Obtain at least one increment from ____?

Sampling Fine Aggregate

- 1 Minimum diameter of sampling tube?
- 2 Do what with outer layer?
- 3 Minimum number of increments?

PERFORMANCE CHECKLIST

AASHTO R 76 Reducing Field Samples of Aggregate to Testing Size

Coarse Aggregate

Size of Test Sample

Determine mass of sample needed to run T 255, T 27, and T 11.

Mechanical Splitter

- 1 Was splitter set up with proper size and number of chutes?
- 2 Sample properly distributed in pan or hopper?
- 3 Sample introduced to chutes at proper rate?
- 4 Sample properly reduced to specified size?

Quartering

- 1 Show evaluator where an alternate method is specified for quartering in the field if no level surface is available?

PERFORMANCE CHECKLIST

AASHTO R 76 Reducing Field Samples of Aggregate to Testing Size

Fine Aggregate

- 1 Determine mass of sample needed to run T 255, T 27, and T 11.

Mechanical Splitter

- 1 Specified number of chutes.
- 2 Minimum and maximum chute size.
- 3 Moisture condition of sample required to use splitter?

Quartering

- 1 Surface conditions?
- 2 Mixing procedure?
- 3 Flatten pile so each quarter contains the material originally in it.
- 4 Relative dimensions of resulting pile?
- 5 Divide pile into . . . ?
- 6 Retain what portions?
- 7 Treatment of fines?

Miniature Stockpile

- 1 Surface conditions?
- 2 Turn pile specified number of times.
- 3 Combine proper number of increments.
- 4 Brush spoon/sampling device each time.

PERFORMANCE CHECKLIST

AASHTO T-255 Total Moisture Content of Coarse and Fine Aggregates By Drying

Coarse Aggregate

- 1 Have applicant show examiner the proper table in T - 255 for test sample size.
- 2 Describe the sources of heat permitted to properly dry the sample.
- 3 Using the provided sample determine the mass of the oven dry sample within the specified tolerance.
- 4 Record required data promptly.

Fine Aggregate

- 1 Have applicant show examiner the proper table in T - 255 for test sample size.
- 2 Using the provided sample determine the mass of the oven dry sample within the specified tolerance.
- 3 Record required data promptly.

PERFORMANCE CHECKLIST

AASHTO T-11 Material Finer Than No 200 Sieve in Mineral Aggregates by Washing

Coarse Aggregate

- 1 Determine mass of sample within specified tolerance.
- 2 Ample amount of water added?
- 3 Wash sample until . . . ?
- 4 Pour wash water over what sieves?
- 5 Return material to sample as specified.
- 6 Dry washed sample to constant mass at what temperature?
- 7 Determine mass to specified tolerance.

Fine Aggregate

- 1 Determine mass of sample within specified tolerance.
- 2 Ample amount of water added?
- 3 Wash sample until . . . ?
- 4 Pour wash water over what sieves?
- 5 Return material to sample as specified.
- 6 Dry washed sample to constant mass at what temperature?
- 7 Determine mass to specified tolerance.

PERFORMANCE CHECKLIST

AASHTO T-27 Sieve Analysis of Fine and Coarse Aggregates

Coarse Aggregate

- 1 Assemble specified nest of sieves.
- 2 Describe the method for determining sufficiency of sieving.
 - 2a. Use what equipment?
 - 2b. Hold sieve in what position?
 - 2c. Hand bump sieve at what rate?
 - 2d. Turn sieve how far at what interval?
 - 2e. Hand bump for how long before checking?
 - 2f. For sieves larger than No. 4?
 - 2g. Sieve until?
- 3 Did applicant check each sieve for blinding?
 - 3a. Calculations for determining blinded sieve.
 - 3b. Methods for prevention of blinding.
- 4 Determine the mass of material retained on each sieve. to the specified tolerance.

PERFORMANCE CHECKLIST

AASHTO T-27 Sieve Analysis of Fine and Coarse Aggregates

Fine Aggregate

- 1 Assemble specified nest of sieves.
- 2 Determine the mass of material retained on each sieve.
to the specified tolerance.