

HCMTCB AGGREGATES CERTIFICATION

KEY ELEMENTS LIST

Release Date: March 29, 2017

PERFORMANCE CHECKLIST

AASHTO T-2 Sampling of Aggregates

Sampling Coarse Aggregate

Sampling From A Stockpile

- 1 When sampling from stockpiles, every effort should be made to _____.

Power Pile

- 1 Power equipment draws materials from?
- 2 Field sample combined from?

By Hand

- 1 When should you sample by hand?
- 2 Sample increments taken from where in the pile?
- 3 How to prevent segregation?
just above the sampling point.

Sampling From A Conveyor Belt

- 1 Sampling locations selected how?
- 2 Number and relative size of increments?
- 3 Isolate sample increment using . . . ?
- 4 Collect how much material from between templates?
- 5 What to do with fines?

Field Sample Size - Coarse Aggregate

Show the evaluator the proper table in T 2 and determine the minimum size field sample for the requested gradation.

PERFORMANCE CHECKLIST

AASHTO T-2 Sampling of Aggregates

Sampling From Flowing Aggregate Stream

- 1 Sampling locations selected how?
- 2 Number and relative size of increments?
- 3 Take each increment from . . . ?
- 4 Reduce segregation by what method?
Avoid first and last of stream.

Sampling From Roadway

- 1 Sampling locations selected how?
- 2 Number and relative size of increments?
- 3 Increments of what depth?
- 4 Do what with underlying material?

Sampling Fine Aggregate

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

Field Sample Size - Fine Aggregate

Have the applicant show the examiner the proper table in T - 2 and determine the minimum size field sample for fine aggregate.

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 T-248 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.
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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.

PERFORMANCE CHECKLIST

Dust Coating for Cover Aggregates

- 1 Obtain sample according to . . . ?
- 2 Reduce sample to testing size according to . . . ?
- 3 Dry sample at what temperature?
- 4 Separate field sample using what sieve?
- 5 Agitate for how long?
- 6 Discard what portion of sample?
- 7 Weigh to what tolerance?
- 8 Wash according to . . . ?
- 9 Dry to _____ at _____?
- 10 Calculation formula?
- 11 Record to nearest?