ASPHALT CERTIFICATION

KEY ELEMENTS LIST

HCMT Program

Release Date: March 10, 2025

PERFORMANCE CHECKLIST

OHD L-65 Sampling Asphalt Mixtures

L-65

ODOT Standard Method for Sampling Asphalt Mixtures

1 Determine un-compacted sample locations according to?

2 Oklahoma Sampling location preference

3 The distance between two or more cores at a location must be between?

4 In filling core holes, the main difference between R 97 and OHD L-65 is the use of?

R 67

Obtaining Cores

1 Coring bit must be cooled by _____.

2 Keep core bit _____ to the surface.

3 Continue drilling to _____.

4 Remove core without _____ or _____ the sample.

R 97

Sampling from truck transport.

5 Select sampling locations.

6 Top surface removed to specified depth.

7 Obtain sample from truck bed. (Simulated.)

PERFORMANCE CHECKLIST

AASHTO R 47

CHOOSE TYPE A or B

1 Splitter cleaned and lubed.

2 Unacceptable release agent properties. (Verbal)

Mechanical Splitter Type A (Quartermaster)

3 Position receptacles to receive portions.

4 Make sure release handle is in position.

5 Fill hopper, avoiding segregation.

6 Release sample through chutes.

7 Reintroduce proper portions.

8 Compose test sample.

Mechanical Splitter Type B (Riffle)

3 Entire sample through splitter.

4 Minimum number of chutes? (Verbal)

5 Minimum width of each chute? (Verbal)

6 Controlled rate to flow smoothly without restriction or loss of material. (Dust pan not required.)

7 Correct weight for required test.

PERFORMANCE CHECKLIST

OHD L 5 Liquid AC

Containers (Verbal)

1 Type of container used for AC.

2 Type of container used for emulsions.

3 **Sample Care (Verbal)**

3a Take care that samples are not _____.

3b Container must be perfectly ____ and ____.

3c Emulsions must be protected from _____.

3d Mark for identification on ____ or ____.

3e Clean outside of container with only _____.

Sampling Locations (Verbal)

4 Truck transport.

4a Valve located in the ____ or ____.

4b Sample taken from what part of load?

5 Mixing Plant Valve Location

6 Storage Tank (Circulating)

Continued on next page.

7 Storage Tank (Not Circulating)

7a Obtain sample by means of _____.

7b Lower to near _____.

7c Withdraw at rate so that _____.

7d Sampling device should be _____ and _____ before taking the sample.

Sampling Procedure (Performance)

Tell applicant - Gloves, heavy long sleeves, and face shield must be used.

8 Treatment of first portion of material from valve.

9 Container filled to appropriate level.

10 Container properly sealed and cleaned.

PERFORMANCE CHECKLIST

OHD L 26 Ignition oven (part 1)

1 If not tested for moisture & volatiles, sample should be dried to a constant weight at what temperature?

2 Verify that the oven is at the correct temperature.

3 Enter correction factor of mix to be tested.

4 Weigh and record weight of sample baskets and pans.

5 Properly prepare sample and place in sample baskets and pan.

6 Weigh and record weights of sample, basket and pans. Calculate initial weight of sample.

7 Enter initial sample weight into ignition oven.

PERFORMANCE CHECKLIST

OHD L 26 Ignition oven (part 2)

1 Place baskets in furnace and verify sample weights (including basket). Check furnace scales for proper reading. Start test.

2 Weight on furnace scale must match recorded weight of sample, baskets, and catch pan within ____.

3 Remove sample baskets and allow to cool to room temperature. (Approximately 30 minutes)

4 Transfer entire sample to flat pan

5 Minimum dimensions of flat pan?

PERFORMANCE CHECKLIST

AASHTO T-209 Maximum Specific Gravity of Bituminous Paving Mixtures

1 Determine sample size from Table 1

2 Separate the particles of the sample by hand, taking care not to fracture mineral particles so that particles of fine aggregate are not larger than 6.5 mm (1/4 inch).

3 Cool the sample to room temperature.

Calibrate flask. (Verbal only)

a Fill with water at specified temperature.

b Cap top of flask.

c Dry outside and weigh.

5 Tare flask at room temperature.

6 Pour mixture in flask using scoop and funnel. Weigh and record.

7 Fill flask containing mixture with enough water to cover sample completely.

8 Initiate vacuum at specified mm Hg and for specified time.

9 Release vacuum by increasing pressure at specified rate.

10 Remove flask from vacuum and fill with water.

11 Bring water in flask to 77 +/- 2☜F.

12 When test temperature is achieved, cap off, dry flask and lid.

13 Weigh flask, lid, mixture, and water within 10 ± 1 minutes after completing vacuum process.

14 Record weight.

PERFORMANCE CHECKLIST

AASHTO T-30 Mechanical Analysis of Extracted Aggregate

1 Determine mass of sample within specified tolerance.

2 Ample amount of water added?

3 Wetting agent used?

4 Wash sample until . . . ?

5 Pour wash water over what sieves?

6 Return material to sample as specified.

7 Dry washed sample to constant mass at what temperature?

8 Determine mass to specified tolerance.

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. For sieves larger than No. 4?

2f. 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. (Get all material from sieve.)

PERFORMANCE CHECKLIST

AASHTO T-176 Plastic Fines in Graded Aggregates and Soils by Use of Sand Equivalent Alternate Method 2 − Pre-Wet

Part one - Sample Preparation

1 Shake material over specified sieve.

2 What should be done with lumps of fine grained material?

3 Clean all fines from the particles retained on the sieve and include in the passing material.

4 Split or quarter enough of the sample to yield 500 to 750 g of material.

5 Perform Fragile Cast Test for proper moisture content. Moisten, if necessary, to obtain the fragile cast, and place in covered pan for specified tempering period.

6 Mix sample with splitting cloth as specified.

7 Fill tin as specified.

8 Remix sample.

9 Fill a second tin as specified.

10 Place tins in oven at what temperature? (Verbal)

PERFORMANCE CHECKLIST

AASHTO T-176 Plastic Fines in Graded Aggregates and Soils by Use and Soils by Use of Sand Equivalent

Part two - Running Sand Equivalent

1 Cool to what temperature? (Verbal)

2 Siphon specified amount of working solution into graduated cylinder.

3 Pour prepared test sample from tin into cylinder using funnel to avoid spillage.

4 Tap bottom of cylinder to remove air and thoroughly wet material.

5 Allow to stand for specified soaking period.

6 Loosen material in cylinder before shaking.

7 Shake cylinders and contents for specified time.

8 Set cylinder upright and remove stopper. Rinse materials from stopper into cylinder.

9 Place irrigation tube into material, rinsing fines from walls. Apply proper action until all fines are flushed from bottom and cylinder is filled to specified level.

10 Allow to stand undisturbed for the specified sedimentation period.

11 Read and record sand and clay readings.

PERFORMANCE CHECKLIST

OHD L 14 \ T 166

ROADWAY CORES

1 Cool specimen to what temperature? (Verbal)

2 Tare hook and string.

3 Bring water to specified temperature.

4 Submerge specimen in water and take reading after specified time.

5 Record weight within specified tolerance.

6 Surface dry specimen with damp towel immediately and weigh within specified tolerance. Record weight.

7 Place specimen in dry pan of known weight and dry to constant weight at specified temperature.

8 Cool specimen and drying pan to room temperature weigh within specified tolerance. Record weight.

9 What if absorption > 2.0%? (Verbal)

10 Calculate specific gravity.

PERFORMANCE CHECKLIST

OHD L 14 \ T 166

LAB MOLDED SPECIMENS

1 Cool specimen to what temperature? (Verbal)

2 Weigh in air to the specified tolerance. Record weight.

3 Tare hook and string

4 Bring water to specified temperature.

5 Submerge specimen in water and take reading after specified time.

6 Record weight to the specified tolerance.

7 Surface dry specimen with damp towel immediately and weigh to the specified tolerance. Record weight.

8 What if % Absorption exceeds 2.0?

9 Calculate specific gravity.

PERFORMANCE CHECKLIST

OHD L-14 Method 2 (Nuc Gauge)

1 When gauge is first turned on, before using, allow it to _____.

2 Place gauge on standard block correctly.

3 Take standard count. (Verbal)

4 Set instrument for specified count.

5 Proper depth set.

6 Properly position gauge on surface.

7 Set gauge to backscatter.

8 Take and record specified number of counts.

9 Number of test locations required for correlation? (Verbal)

OHD L-45
Specific Gravity and Unit Weight Using Vacuum Sealing Method

1 Dry specimen to constant mass at what temperature? (Verbal)

2 Bring specimen to what temperature? (Verbal)

3 Record initial weight of specimen.

4 Weigh bag and record mass.

5 Place bag in machine as specified.

6 Place specimen in bag properly.

Smooth side down. Min 1 inch overlap. No wrinkles.

7 Close lid to begin vacuum process.

8 Remove sample from chamber and check for leaks.

9 Combine weights of specimen and bag.

10 Immerse sample in water within specified time limit after sealing. (Verbal)

11 Immerse specimen in water at specified temperature. (Verb)

12 Record weight to specified tolerance when reading stabilizes.

13 Test sample for validity. (Permissible gain or loss of mass.)

14 Place specimen in dry pan of known weight and dry to constant weight at specified temperature.

15 Cool specimen and drying pan to room temperature, weigh and record mass.

PERFORMANCE CHECKLIST

AASHTO T 312 Superpave Gyratory

Key Elements 1 - 4 are verbal questions.

1 Sample conditioned at what temperature?

2 Sample conditioned for how long?

3 Does machine ever require calibration?

4 Where is the calibration information found?

5 Verify machine is set for specified number of gyrations.

6 Place paper gasket over base plate.

7 Fill mold with sample as specified.

8 Level material in mold.

9 Place paper gasket and top plate (if required) on top of material and slide mold into compactor.

10 Start SGC.

PERFORMANCE CHECKLIST

ASTM D 8225 (IDEAL CT)

1 Samples are prepared according to:

2 Samples can be stored either:

3 What temperature should the sample be stored at?

4 How long should the sample be stored at this temperature?

5 Before testing, what should be checked on equiptment?

6 Samples should be tested within how many minutes?

7 Load sample into frame as specified

8 What is the rate of load line displacement (LLD)?

9 During testing, what should be recorded?

10 How many data points should be recorded to obtain a smooth LLD curve?

11 When to stop testing?

12 How is the CT Index calculated?