

2026 Aggregate Gradation and Gravity Samples 9 (A) and 10 (B) Sample Instructions

Closing Date: September 17, 2026

General Information:

Treat each sample as you would treat a typical sample brought into the laboratory. Any special handling or preparation instructions are included below. Conduct tests on each of the two samples in accordance with the instructions below. Report the results of a single determination only, not the average of two or more unless specified in the test method or instructions.

The instructions and data sheet may direct laboratories to report the results to an extra decimal place beyond what is required by a test method. This extra level of precision improves the quality of the statistical analysis by giving us more detailed data for evaluation.

To permit an estimate of single-operator precision, the same operator should conduct an individual test on both samples. It is not necessary that the same person conduct all the tests in the sample round.

Leave the appropriate spaces on the data sheet blank for any tests you choose not to perform.

Requirements for AASHTO Accredited Laboratories:

AASHTO accredited laboratories are required to perform every test included in an AASHTO re:source Proficiency Sample Program sample round that is also listed in each laboratory's AASHTO Accreditation scope.

[AASHTO Accreditation Policy on PSP Participation](#)

The tests that are not listed in the laboratory's accreditation scope may also be performed, but testing is not required, and the AASHTO Accreditation Program (AAP) will not evaluate the ratings.

Sample Information:

You should have received two boxes of materials for Aggregate Gradation and Gravity samples 9 (A) and 10 (B). The boxes should contain the following:

Bag 1 - a mixture of coarse and fine aggregates (approx. 3.4 to 3.5 kg)

- used for T 11/C117, T 27/C136, and T 85/C127

Bag 2 – fine aggregate passing the 4.75-mm (No. 4) sieve in moist condition (approx. 2.5 kg)

- used for T 84/C128, T 176/D2419, and T 304/C1252

To view an unboxing video of these samples please use the following link:

[AGG 9 \(A\) and 10 \(B\) Unboxing Video](#)

Bag 1 Instructions

Use the bag of material containing the mixture of fine and coarse aggregates for the following tests:

Sample Preparation:

Remove as much material from the sample bag as possible. (You may need to rinse the bag with water.) Dry the sample in an oven and record the mass. If the dry mass of your sample is not between **3400 g and 3500 g**, please contact us. Upon completion of T 11/C117 and T 27/C136, retain the plus 4.75-mm (No. 4) material for use in testing for Coarse Aggregate Specific Gravity (T 85/C127).

Materials Finer Than 75- μ m Sieve by Washing (Procedure B using a wetting agent), AASHTO T 11-25 or ASTM C117-23: Perform the test in accordance with the procedure, using a wetting agent. Report the percentage finer than the 75- μ m (No. 200) sieve to the nearest 0.01 percent.

Sieve Analysis, AASHTO T 27-24 or ASTM C136-25: After performing T 11/C117, dry the remaining material again and sieve it in accordance with T 27/C136 using the following sieves:

Sieve Requirements

19.0 mm (3/4 in.)	1.18 mm (No. 16)
12.5 mm (1/2 in.)	600 μ m (No. 30)
9.5 mm (3/8 in.)	300 μ m (No. 50)
4.75 mm (No. 4)	150 μ m (No. 100)
2.36 mm (No. 8)	75 μ m (No. 200)

Report the total percent passing each sieve to the nearest 0.1 percent for all sieve sizes except the 75 μ m (No. 200). Report the total percent passing 75 μ m (No. 200) from both T 11/C117 and T 27/C136 to the nearest 0.01 percent.

Specific Gravity and Absorption of Coarse Aggregate, AASHTO T 85-25 or Density, Relative Density (Specific Gravity) and Absorption of Coarse Aggregate, ASTM C127-25: Determine the oven-dry bulk specific gravity (BSG_{OD}), the SSD bulk specific gravity (BSG_{SSD}), the apparent specific gravity (ASG), and the absorption. Report the gravity values to the nearest 0.001 units. Report the absorption to the nearest 0.01 percent.

Bag 2 Instructions

Use the bag of material containing the fine aggregate in moist condition for the following tests:

Sample Preparation:

Reduce the material in the sample bag so there is enough to perform T 84/C128 and T 176/D2419 separately. Upon completion of the testing for T 84/C128 and T 176/D2419, retain the material and recombine for use in preparing the test specimens for T 304/C1252.

Specific Gravity (Relative Density) and Absorption of Fine Aggregate, AASHTO T84-25 or ASTM C128-25: Determine the oven-dry bulk specific gravity (BSG_{OD}), the SSD bulk specific gravity (BSG_{SSD}), the apparent specific gravity (ASG), and the absorption. Report the gravity values to the nearest 0.001 units. Report the absorption to the nearest 0.01 percent.

Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test, AASHTO T176-22 or ASTM D2419-22: Obtain specimens using either the Air Dry or Pre-Wet method according to AASHTO Alternate Method No.1 or No. 2, or ASTM Procedure A or B. Dry each test specimen to constant mass and cool to room temperature before testing. Report the average of the three sand equivalent determinations to the next highest whole number.

Uncompacted Void Content, AASHTO T 304-22 or ASTM C1252-23: Perform the test in accordance with Method A on both samples and complete two test runs on each sample. Use the oven-dry bulk specific gravity determined in T 84/C128 above for the calculations. Calculate the average uncompacted voids of the two test runs and report the average to the nearest 0.01 percent.

Please contact AASHTO re:source at psp@ashtoresource.org or 240-436-4900
if you have any questions.