# 2026 Asphalt Mixture Solvent Extraction Proficiency Samples 105 (A) and 106 (B) Sample Instructions

Closing Date: December 10, 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.

Reporting the results to an extra decimal place beyond what is required by the test method is requested for statistical reasons and equates to more precise data that is available to analyze.

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.

Proficiency Sample Testing: Rules for Participation – Extracted Asphalt

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 one shipping box of material. The outside of the shipping box is labeled 105 (A) and 106 (B). The box should include two quick-release boxes, each containing samples with an approximate mass range of 2525-2550 g. If the sample masses are outside of this range, please contact us immediately.

To view a brief video of what should be in each box, please use the following link:

HMS 105 (A) and 106 (B) Unboxing Video

**Extraction Methods:**

**Quantitative Extraction of Asphalt Binder from Asphalt Mixtures, AASHTO T164-26 or ASTM D2172-26, or Test Method for Automated Extraction of Asphalt Binder from Asphalt Mixtures, ASTM D8159-19:** Assume the sample is moisture free. Report the mass of the sample "as received" to the nearest 0.1 g. Calculate and report the percentage of extracted asphalt to the nearest 0.01 %.

**Mechanical Analysis of Extracted Aggregate, AASHTO T30-25 or ASTM D5444-24:** Determine the mass of material removed by washing over the 75-µm sieve and report it to the nearest 0.1 g. Report the total material passing each of the following sieves to the nearest 0.1 percent, as percentages of the total mass of aggregate in the asphalt mixture: 12.5 mm, 9.5 mm, 4.75 mm, 2.36 mm, 1.18 mm, 600 µm, 300 µm, and 150 µm. Report the total percentage passing the 75-µm sieve to the nearest 0.01 %.



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**Asphalt Binder Recovery Method:**

**Recovery of Asphalt Binder from Solution Using the Rotary Evaporator, ASTM D5404-25:** Recover the asphalt using the rotavapor method. Use only the solvents specified in the test method.

**Test Methods on Recovered Residue:**

**Test for Penetration of Bituminous Materials, T49-26 or D5-20:** Report the average of three penetrations at 25º C, 100 g, 5 seconds to the nearest whole unit.

**Determining the Rheological Properties of Asphalt Binder Using the Dynamic Shear Rheometer (DSR), T315-26 or D7175-25:** Determine the high temperature stiffness (G*/sin δ) at **64°C**, using a frequency of 10 rad/s, a 25-mm plate, a 1-mm gap, and the strain or stress values specified in the test method for tests on original binder. Report G*/sin δ to the nearest 0.01 kPa.

**Contact AASHTO re:source at psp@aashtoresource.org or 240-436-4900 if there are questions.**



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