

## 2018 Asphalt Mixture Asphalt Solvent Extraction Proficiency Samples 89 (A) and 90 (B)

### Instructions for Testing and Reporting

Closing Date: January 10th, 2019

All tests should be conducted on each of the two samples according to the AASHTO or ASTM Standard Methods indicated. Report the results of a single determination only, not the average of two or more, except in cases where an average is called for in the method. For any tests that you do not perform, leave the appropriate spaces on the data sheet blank.

#### **Directions for the individual tests on Samples No. 89(A) and No. 90(B) follow:**

*Note: Please note that samples 89(A) and 90(B) are not identical. The percentages of asphalt and the aggregate gradations are different. The program is designed to obtain two independent test results, one for each numbered sample, for each test method that the laboratory chooses to perform. The outside of the shipping box is labeled 89(A) and 90(B). The samples inside the box are labeled only (A) or (B). The sample labeled (A) is sample 89. The sample labeled (B) is sample 90.*

#### **Quantitative Extraction of Bitumen from Bituminous Paving Mixtures, T164-14, D2172-17e1, or T319-15:**

Assume the sample is moisture free. Report the mass of the sample used to the nearest 0.1 g. Calculate and report the percentage of extracted asphalt to the nearest 0.01 percent.

#### **Mechanical Analysis of Extracted Aggregate, T30-15 or D5444-15:**

Determine the mass of material removed by washing over the 75- $\mu$ m sieve. Report the mass of material removed by washing over the 75- $\mu$ m sieve to the nearest 0.1 g. Report to the nearest 0.1 percent the total material passing each of the following sieves, as percentages of the total mass of aggregate in the bituminous mixture: 12.5-mm, 9.5-mm, 4.75-mm, 2.36-mm, 1.18-mm, 600- $\mu$ m, 300- $\mu$ m and 150- $\mu$ m. Report the total percentage passing the 75- $\mu$ m sieve to the nearest 0.01 percent; the **total** percent passing the 75- $\mu$ m sieve shall include the mass removed by washing, material in the pan, mineral matter in the extracted asphalt, and increase in mass of the filter.

#### **Recovery and Testing of Asphalt Residue, R59-11 / D1856-09 or D5404-12 or T319-15:**

Recover the asphalt using the Abson or Rotavapor Method. Use only the specified solvent.

#### **Penetration of the Residue, T49-15 or D5-13:**

Report to the nearest whole unit the average of three penetrations at 25°C, 100 g, 5 seconds.

#### **Kinematic Viscosity of the Residue, T201-15 or D2170-10:**

Report the kinematic viscosity at 135°C in mm<sup>2</sup>/s (cSt) to four significant figures.

#### **Viscosity of the Residue at 60°C, T202-15 or D2171-10:**

Report the viscosity, at 60° C and 300 mm Hg vacuum, in Pa·s to four significant figures. (1 Pa·s is equivalent to 10 poise)

#### **Dynamic Shear Rheometer (DSR), AASHTO Standard T315-12 or D7175-15:**

Determine high temperature stiffness ( $G^*/\sin \delta$ ) 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 method for tests on original binder. Report  $G^*/\sin \delta$  to the nearest 0.01 kPa.

Please contact AASHTO re:source at [psp@ashtoresource.org](mailto:psp@ashtoresource.org) or call 240-436-4900 if there are questions.