

## Fall 2022 Viscosity Graded Asphalt Cement Proficiency Sample Program Samples 269 (A) and 270 (B) Instructions for Testing and Reporting

[Closing Date November 10<sup>th</sup>, 2022](#)

All tests should be conducted on each of the two samples according to the AASHTO or ASTM Standard Methods indicated. For any tests you do not choose to perform, leave the appropriate spaces on the data sheet blank.

Instructions for the individual tests on Samples No. 269(A) and No. 270(B) follow:

*Note: The outside of the box is labeled 269(A) and 270(B). The cans inside the box are labeled only (A) or (B). The can labeled (A) is sample 269. The can labeled (B) is sample 270.*

*For each test performed please report the result of a single determination only, not the average of two or more, except in cases where an average is called for in the method. 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.*

*Treat each sample as you would treat at typical "testing" sample.*

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**Penetration of Bituminous Materials at 25°C, T49-15 or D5-20:** Report, to the nearest whole unit, the average of three penetrations (at 25°C, 100 g, 5 sec.) whose values do not differ more than the amount given in T49 (D5).

**Penetration of Bituminous Materials at 4°C, T49-15 or D5-20:** Report, to the nearest whole unit, the average of three penetrations (at 4°C, 200 g, 60 sec.) whose values do not differ by more than the amount given in method T49 (D5).

**Flash Point by Cleveland Open Cup, T48-18 or D92-18:** Report the flash to the nearest degree Celsius (estimated). Correct the observed value for barometric pressure if necessary. If a skin should form, move it carefully aside with a glass rod or spatula and continue with the determination of the flash point. Please note this condition under "comments" or "feedback" when the results are submitted.

**Specific Gravity (Relative Density) of Bituminous Materials, T228-09 or D70-21:** Determine the specific gravity (relative density) at 25°C relative to water at 25°C. Report the results to the nearest 0.0001 gravity unit.

**Kinematic Viscosity of Asphalts, T201-15 or D2170-18:** Report the kinematic viscosity at 135°C in mm<sup>2</sup>/s (cSt) to four significant figures.

**Viscosity of Asphalts by Vacuum Capillary Viscometer, T202-15 or D2171-18:** 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)

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**Rolling Thin Film Oven Test (RTFO), T240-21 or D2872-21: Change in Mass:**

Weigh the sample and containers to the nearest milligram. Report, to the nearest 0.001 percent, the average change in mass of the material. *Please use a negative number to report a mass loss and a positive number to report a mass gain.*

**Penetration of the RTFO Residue at 25°C, T49-15 or D5-20:** Report, to the nearest whole unit, the average of three penetrations at 25°C, 100 g, 5 sec., whose values do not differ by more than the amount given in Method T49 (D5).

**Penetration of the RTFO Residue at 4°C, T49-15 or D5-20:** Report, to the nearest whole unit, the average of three penetrations at 4°C, 200 g, 60 sec., whose values do not differ by more than the amount given in Method T49 (D5).

**Kinematic Viscosity of the RTFO Residue at 135°C, T201-15 or D2170-18:** Report the kinematic viscosity at 135°C in mm<sup>2</sup>/s (cSt) to four significant figures.

**Viscosity of the RTFO Residue at 60°C, T202-15 or D2171-18:** Report the viscosity of the residue, at 60°C and 300 mm Hg vacuum, in Pa·s to four significant figures. (1 Pa·s is equivalent to 10 Poise)