
Test Procedure for
TEST METHODS FOR VARIOUS BITUMINOUS MATERIALS

TxDOT Designation: Tex-501-C, et al
Effective Date: August 1999 – April 2020

1. SCOPE

- 1.1 Some of the Department's test methods on bituminous materials are based on AASHTO and ASTM test methods and practices. References to individual test methods and practices are below.
- 1.2 The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
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2. TESTING INFORMATION

- 2.1 CST/M&P is responsible for the performance of these tests. District laboratories may also perform some of these tests.
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3. REFERENCE LOCATION
Table 1—Test Method Reference

Test Method	Reference
Tex-501-C	AASHTO T 55
Tex-502-C	AASHTO T 49
Tex-503-C	AASHTO T 51
Tex-504-C	AASHTO T 48
Tex-505-C	AASHTO T 53
Tex-506-C	AASHTO T 47
Tex-507-C	AASHTO T 44
Tex-508-C	AASHTO T 228 (See Note 1, Section 4.1)
Tex-509-C	AASHTO T 102 (See Note 2, Section 4.2)
Tex-510-C	AASHTO T 179
Tex-512-C	AASHTO T 79

Test Method	Reference
Tex-513-C	AASHTO T 72
Tex-514-C	Either of the following, depending on the material: <ul style="list-style-type: none"> ▪ Cutback Asphalts—ASTM D 3142 ▪ Emulsified Asphalts—ASTM D 244 (Weight per Gallon of Emulsified Asphalt)
Tex-515-C	AASHTO T 78
Tex-519-C	AASHTO T 50
Tex-520-C	ASTM D 243
Tex-521-C	AASHTO T 59
Tex-528-C	AASHTO T 202
Tex-529-C	AASHTO T 201

4. NOTES

- 4.1 In routine testing, it is convenient to determine the specific gravity of asphalt at 25°C (77°F) and convert this value to the specific gravity of asphalt at 15.6°C (60°F) by the addition of 0.006, derived by the use of the accepted ASTM IP coefficient of thermal expansion. The specific gravity can be used to select the proper group or factor from the Asphaltic Materials Measurement tables for reducing the volume of the material at high observed temperature to the basis of 15.6°C (60°F).
- 4.2 In lieu of the standard naphtha, perform all testing using a blend of 65% heptane and 35% xylene.