07/31/2017

S702-14\_07312017.docx

|  |
| --- |
| Use on projects as appropriate. |

## Section 702. — ASPHALT MATERIAL

|  |
| --- |
| Use on projects with paving (Sections 401, 402 and 403). |

**702.01 Asphalt Binder.** Delete the Subsection and add the following:

**702.01 Asphalt Binder.** Conform to M 320, Table 1.

In AASHTO M 320, Table 1 replace footnote *g* with the following:

*g* If the creep stiffness is below 300 MPa, the direct tension test is not required. If the creep stiffness is between 301 and 600 MPa, the creep stiffness value shall be used. The *m*-value requirement must be satisfied in both cases.

|  |
| --- |
| When an Open Graded Friction Course is specified (Section 405) in Nevada, use the following. Anywhere other than Nevada check with Materials for the correct table. |

**702.01 Asphalt Binder.** Add the following:

Asphalt binder for the asphalt concrete pavement and open-graded asphalt friction course will be Grade PG 76-22NV conforming to Table 702-2. Blend the PG 76-22NV at the source of supply and deliver as a completed mixture to the job site. Do not transport PG 76-22NV by railroad car.

**Table 702-2**

**Asphalt Binder Grade PG 76-22NV for Open Graded Friction Course**

|  |  |  |
| --- | --- | --- |
| **Test** | **Test Method** | **Requirement** |
| **Tests on Original Binder:** | | |
| Viscosity @ 135°C, Pa⋅s | AASHTO T 316 | 3.00 Max. |
| Dynamic Shear, G\*/sin δ, Test Temp 76°C @  10 rad/s, kPa | AASHTO T 315 | 1.30 Min. |
| Ductility @ 4°C, 5 cm/min, cm | AASHTO T 51 | 20 Min. |
| Polymer Content, % by mass | (1) | 3.0 Min. |
| **Tests on Residue from R.T.F.O., AASHTO T 240:** | | |
| Mass Loss, % | AASHTO T 240 | 0.50 Max. |
| Dynamic Shear, G\*/sin δ, Test Temp 76°C @  10 rad/s, kPa | AASHTO T 315 | 2.20 Min. |
| Multiple Stress Creep Recovery, Test Temp 76°C  @ 3200 Pa, % | AASHTO TP 70 | 25 Min. |
| Ductility @ 4°C, 5 cm/min, cm | AASHTO T 51 | 10 Min. |
| **Tests on Residue from Pressure Aging Vessel, AASHTO R28 @ 110°C:** | | |
| Dynamic Shear, G\*sin δ , Test Temp 31°C @  10 rad/s, kPa | AASHTO T 315 | 5000 Max. |
| Creep Stiffness, S, Test Temp −12°C @  60 sec, MPa | AASHTO T 313 (2) | 300 Max. |
| Creep Stiffness, m-value, Test Temp −12°C @  60 sec | AASHTO T 313 (2) | 0.300 Min. |
| Direct Tension, Failure Strain, Test Temp −12°C  @ 1.0 mm/min, % | AASHTO T 314 (2) | 1.00 Min. |

(1) Certificates of compliance provided for the material shall certify that the minimum polymer content is present.

(2) If the creep stiffness is below 300 MPa, the direct tension test is not required. If the creep stiffness is between 300 and 600 MPa, the direct tension failure strain can be used in lieu of the creep stiffness requirement. The m-value requirement must be satisfied in both cases.

|  |
| --- |
| Use on projects when Micro Surfacing is specified (Section 409). |

**702.02 Emulsified Asphalt**

**702.02 (b) Polymer-modified emulsified asphalt for micro-surfacing.** Delete the paragraph and substitute the following:

Conform to ISSA A143, except use Section 7, *Emulsified Asphalt Residue by Evaporation* of AASHTO T 59 to determine percent residue.