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|---|---|
| **Province:** Nova Scotia | **Materials:** |
| **Date Last Reviewed:** 8/6/14 | **Web Address:** |
| **Materials Engineer:** Keith Purdy, M.Eng, P.Eng | **Contact Info:** purdykm@gov.ns.ca |

| **Asphalt Binder** | | |
|---|---|---|
| | Description | |
| | PMA's | |
| | Exclusions | |

| ***Nova Scotia*** | | **Table 1: PG Requirements for Performance-Graded Asphalt Binders** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Property** | | **Test Method: AASTHO (T), ASTM (D) or other** | **Requirements by Performance Grade** | | | | | | | |
| | | | **PG 52-34** | **PG 52-40** | **PG 58-28** | **PG 58-34** | **PG 58-40** | **PG 64-28** | **PG 64-34** | **PG 70-28** | **PG 70-34** |
| **ORIGINAL** | | | | | | | | | | | |
| Flash Point, °C | | D92 | 230 min. | 230 min. | 230 min. | 230 min. | 230 min. | 230 min. | 230 min. | 230 min. | 230 min. |
| Rotational Viscosity, Pa·s | 135 °C | T316 | 3 max. | 3 max. | 3 max. | 3 max. | 3 max. | 3 max. | 3 max. | 3 max. | 3 max. |
| Dynamic Shear, kPa (G*/sin δ, 10 rad./sec) | At Grade Temperature | T315 | 1.00 min. | 1.00 min. | 1.00 min. | 1.00 min. | 1.00 min. | 1.00 min. | 1.00 min. | 1.00 min. | 1.00 min. |
| **RTFO RESIDUE** | | T240 | | | | | | | | | |
| Mass Variation, % | | T240 | 1.00 max. | 1.00 max. | 1.00 max. | 1.00 max. | 1.00 max. | 1.00 max. | 1.00 max. | 1.00 max. | 1.00 max. |
| Dynamic Shear, kPa (G*/sin δ, 10 rad./sec.) | At Grade Temperature | T315 | 2.20 min. | 2.20 min. | 2.20 min. | 2.20 min. | 2.20 min. | 2.20 min. | 2.20 min. | 2.20 min. | 2.20 min. |
| **PAV RESIDUE** | | R28 | 90 °C | | 100 °C | | | | | | |
| Creep Stiffness, MPa | At Test Temperature | T313 | -24 °C | -30 °C | -18 °C | -24 °C | -30 °C | -18 °C | -24 °C | -18 °C | -24 °C |
| | | | 300 max. | 300 max. | 300 max. | 300 max. | 300 max. | 300 max. | 300 max. | 300 max. | 300 max. |
| M-Value | | | 0.300 min. | 0.300 min. | 0.300 min. | 0.300 min. | 0.300 min. | 0.300 min. | 0.300 min. | 0.300 min. | 0.300 min. |
| Direct Tension, % Strain | | T314 | - | - | - | - | - | - | - | - | - |
| **NOTES** | | None. | | | | | | | | | |

Disclaimer: "To ensure the most accurate and current information, the specific agency should be contacted."

| *Nova Scotia* | | Table 2: PG Plus Requirements for Performance-Graded Asphalt Binders | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Property** | | **Test Method: AASTHO (T), ASTM (D) or other** | **Requirements by Performance Grade** | | | | | | | | |
| | | | **PG 52-34** | **PG 52-40** | **PG 58-28** | **PG 58-34** | **PG 58-40** | **PG 64-28** | **PG 64-34** | **PG 70-28** | **PG 70-34** |
| **ORIGINAL** | | | | | | | | | | | |
| Specific Gravity | 15.6 °C | T228 | - | - | - | - | - | - | - | - | - |
| Penetration, tenths of mm | 25 °C | T49 | - | - | - | - | - | - | - | - | - |
| Elastic Recovery, % | 10 °C | LC 25-005 | - | 40 min. | - | 40 min. | 60 min. | - | 60 min. | 60 min. | 60 min. |
| Ductility, cm | 25 °C | T51 | - | - | - | - | - | - | - | - | - |
| Force Ductility, Force Ratio | 4 °C | T300 | - | - | - | - | - | - | - | - | - |
| Viscosity, Poise | 60 °C | T316 | - | - | - | - | - | - | - | - | - |
| Toughness and Tenacity | Toughness, in-lbs. | D5801 | - | - | - | - | - | - | - | - | - |
| | Tenacity, in-lbs. | | - | - | - | - | - | - | - | - | - |
| Softening Point, °C (°F) | | T53 | - | - | - | - | - | - | - | - | - |
| Storage Stability, °C | | LC 25-003 | 2 max. | 2 max. | 2 max. | 2 max. | 2 max. | 2 max. | 2 max. | 2 max. | 2 max. |
| Solubility, % | | T44 | - | - | - | - | - | - | - | - | - |
| Homogeneity (Screen Test) | | - | - | - | - | - | - | - | - | - | - |
| Spot Test | | T102 | - | - | - | - | - | - | - | - | - |
| Ash Content, % | | LC 25-008 | 0.60 max. | 0.60 max. | 0.60 max. | 0.60 max. | 0.60 max. | 0.60 max. | 0.60 max. | 0.60 max. | 0.60 max. |
| **RTFO RESIDUE** | | T240 | | | | | | | | | |
| Elastic Recovery, % | 10 °C | LC 25-005 | - | 40 min. | - | 40 min. | 60 min. | - | 60 min. | 60 min. | 60 min. |
| MSCR, 3.2 kPa, At Grade Temperature | $J_{nr}$ | TP70 | Report | Report | Report | Report | Report | Report | Report | Report | Report |
| | % Recovery | | Report | Report | Report | Report | Report | Report | Report | Report | Report |
| **NOTES** | | None. | | | | | | | | | |