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| State: Rhode Island | Materials: Re: Section 401.02.2 - Performance Graded Asphalt Binder (PGAB) |
| Date Last Reviewed: 4/1/24 | Web Address: www.dot.ri.gov/business/bluebook/index.php |
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| Asphalt Binder | | |
|---|-----------------------|---|
| Blue Book Section 401.02.2 Section M03.02.1 | Highlights | RIDOT implemented AASHTO M332 (MSCR) for modified grades in 2013 with full implementation for all grades in 2016. MSCR recovery is specified using the curve in AASHTO R92. |
| | PMA Notes | 2% minimum SBS for PG 64E-28. |
| | Exclusions and Limits | Do not use re-refined engine oil bottoms (REOB) in any PGAB. |

| Rhode Island | | Table 1: Requirements for Performance-Graded Asphalt Binders | | | |
|---|----------------------------|---|--------|--------|-----------|
| Property | Test Method: AASHTO | Requirements by Performance Grade | | | |
| | | 58S-22 | 64S-22 | 64S-28 | 64E-28 |
| ORIGINAL | | | | | |
| Flash Point, ° C | T 48 | 230 min. | | | |
| Specific Gravity | 15.6°C T 228 | Report | | | |
| Rotational Viscosity, Pa·s | 135° C T 316 | 3.0 max. | | | |
| Dynamic Shear, kPa (G*/sin δ, 10 rad./sec) | At Grade Temp. T 315 | 1.00 min. | | | |
| RTFO RESIDUE | | | | | |
| Mass Change, % | T 240 | 1.00 max. | | | |
| MSCR Test temp., ° C | T 350 | 58 | 64 | | |
| MSCR Jnr _{3.2} , max., kPa ⁻¹ | | 4.5 | | | 0.5 |
| MSCR, Jnr _{diff} , max., % | | 75 max. (Note 1) | | | |
| MSCR, % recovery @ 3.2kPa, min. | | (Note 2) | | | |
| PAV RESIDUE | | | | | |
| DSR Test Temperature, ° C | T 315 | 22 | 25 | 22 | |
| Dynamic Shear, kPa (G*· sin δ, 10 rad./sec.) | | 6000 max. δ min. 42° (Note 3) | | | 6000 max. |
| BBR Test Temperature, ° C | T 313 | -12 | | -18 | |
| Creep Stiffness, MPa | | 300 max. | | | |
| M-Value | | 0.300 min. | | | |
| NOTES | | <ol style="list-style-type: none"> Not applicable for binders with Jnr_{3.2} < 0.5 kPa⁻¹. >29.371*(Jnr_{3.2}^{0.265}) - binder grade E must meet the requirements of AASHTO R 92. If G* sin δ is below 5000 the phase angle minimum limit is not required . | | | |

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