

<b>State:</b> Virginia	<b>Materials:</b> Re: Section 210 – Asphalt Materials
<b>Date Last Reviewed:</b> 2/12/2024	<b>Web Address:</b> www.dot.state.va.us
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Asphalt Binder		
Section 210	Highlights	VDOT fully implemented AASHTO M332 (MSCR) for all binder grades effective Jan 1, 2015. The MSCR Recovery criteria is based on the curve in AASHTO R92.

Virginia		Table 1: Requirements for Performance-Graded Asphalt Binders (Note 3)				
Property	Test Method: AASHTO (T), ASTM (D)	Requirements by Performance Grade				
		58S-22	64S-22	64H-22	64E-22	76E-28 (HP) (Note 2)
<b>ORIGINAL</b>						
Flash Point, ° C	T48	230 min.				
Rotational Viscosity, Pa·s	135° C T316	3.0 max.				5.0 max.
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec)	At Grade Temperature T315	1.00 min.				
<b>RTFO RESIDUE</b>		T240				
Mass Change, %	T240	1.00 max.				
MSCR Test Temperature	T350	58° C	64° C			76° C
MSCR, J <sub>nr</sub> @3.2kPa, max.		4.5		2.0	0.5	0.1
MSCR, % Recovery @ 3.2kPa, min.		N/A			(Note 1)	90
MSCR, J <sub>nr</sub> % Difference, Max.		75				
<b>PAV RESIDUE</b>		R28				
		100° C, 20 hrs, 300 psi				
Dynamic Shear, kPa (G* · sin δ, 10 rad./sec.)	At Test Temperature T315	22° C	25° C	25° C	25° C	28° C
		5000 max.		6000 max.		
Creep Stiffness, MPa	At Test Temperature T313	-12° C	-12° C	-12° C	-12° C	-18° C
M-Value		300 max.				
		0.300 min.				
<b>NOTES</b>		<ol style="list-style-type: none"> <li>1. % Rec3.2 &gt; 29.371 Jnr3.2 – 0.263</li> <li>2. High Polymer Binder shall consist of mixes incorporating a neat asphalt material with a high polymer modification (approximately 7.5%) complying with AASHTO M332 with the exception that MSCR shall have a Jnr3.2 maximum value of 0.1 kPa-1 and the minimum percent recovery shall be 90%.</li> <li>3. Requirements in addition to M332 are shown in red.</li> </ol>				

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