

<b>State:</b> Mississippi	<b>Materials:</b> Re: Section 702 - Bituminous Material
<b>Date Last Reviewed:</b> 8/13/25	<b>Web Address:</b> <a href="https://mdot.ms.gov/portal/engineering_standards_guides_manuals">https://mdot.ms.gov/portal/engineering_standards_guides_manuals</a>
<b>Materials Engineer:</b> Griffin Sullivan	<b>Contact Info:</b> wsullivan@mdot.ms.gov

<b>Asphalt Binder</b>		
Section 702.05 Petroleum Asphalt Cement	Highlights	Asphalt cement shall be homogeneous, free of water and shall not foam when heated to a temperature of 175°C. Except for use in hot mix asphalt, asphalt cement of the grade specified shall conform to the requirements of subsection 702.12, Table I or II. Bituminous material conforming to AASHTO Designation: M 320, Grade PG 58-28 may be used in lieu petroleum asphalt cement, Grade AC-10. The bituminous material used in all types of hot mix asphalt shall conform to AASHTO Designation: M 320, Performance Grade PG 67-22, as modified in table below, except when otherwise specified or when polymer modified hot mix asphalt is specified. MDOT almost solely uses PG 67-22 and PG 76-22, even though they include specifications for PG 58-28 and PG 82-22.
Section 702.08.3	PMA Notes	The polymer shall be an SBS, an SBR or an equal approved by an Engineer. The polymer shall be thoroughly blended with the asphalt cement at the refinery or terminal prior to shipment to the hot mix plant. Producers of polymer modified asphalt cement must be listed on MDOT's Approved List of Polymer Modified Asphalt Cement. The producer of the PMAC shall perform or have performed by an approved laboratory all tests contained in AASHTO Designation: M 320 on a lot basis. A lot shall consist of one (1) refinery or storage tank not to exceed 225, 000 gallons. Finely-ground crumb rubber produced by ambient grinding methods may be used as a modifier. Requirements for this material are described in 702.08.3. MDOT currently accepts polymerized binder by certification and does not specify elastic recovery or any other test for acceptance.
Additional Notes		Mississippi DOT does not plan to implement MSCR in the near future. However, they are currently performing a small amount of in-house MSCR testing and documenting results for some binders, as well as participating in the MSCR portion of AMRL Proficiency Sampling. PPA modification of asphalt cement is allowed with the following maximum limits: 0.75% bw (PG 67-22) and 0.50% (PG 76-22).

<i>Mississippi</i>		<b>Table 1: Requirements for Performance-Graded Asphalt Binders (Note 1)</b>				
Property		Test Method:	Requirements by Performance Grade			
			58-28	67-22	76-22	82-22
<b>ORIGINAL</b>						
Flash Point, °C		T48	230 min.			
Rotational Viscosity, Pa·s	135° C	T316	3.0 max.			
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec)	At Grade Temperature	T315	1.00 min.			
Polymer Content	Polymer Required	-	No		Yes	
	Polymer Type, %		-		Yes	
	Temp.-Viscosity Curve		-		Yes	
<b>RTFO RESIDUE</b>						
Mass Change, %		T240	1.00 max.			
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec.)	At Grade Temperature	T315	2.20 min.			
<b>PAV RESIDUE</b>						
Dynamic Shear, kPa (G* · sin δ, 10 rad./sec.)	At Test Temperature	T315	19° C	26.5° C	31° C	34° C
			5000 max.			
Creep Stiffness, MPa	At Test Temperature	T313	-18° C	-12° C		
			300 max.			
M-Value			0.300 min.			
<b>NOTES</b>		1. Requirements in addition to M320 are shown in red.				

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