

State: Nevada	Materials: Re: Section 703 - Bituminous Materials
Date Last Reviewed: 10/30/2025	Web Address: www.nevadadot.com
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Asphalt Binder		
Section 703.03.02	Highlights	This Section covers asphalt cements, which have been prepared from crude petroleum by suitable methods. The asphalt cements shall be homogenous, free from water and shall not foam when heated to 175 °C. Blending of asphalt cements to produce a specified performance grade shall result in a uniform, homogenous blend with no separation.
	PMA Notes	Modified binders shall be blended at the source of supply and delivered as a completed mixture to the job site. Modified binders must meet the requirements (Table 1A). Blend the PG 64-28NV and PG 76-22NV at the source of supply and deliver as a completed mixture to the job site. Upon request, furnish samples of the base asphalt and polymer used in the production of PG 76-22NV to test for polymer content.
	Exclusions and Limits	Do not transport PG 64-28NV or PG 76-22NV by railroad car.

Nevada			Table 1: Requirements for Performance-Graded Asphalt Binders (Note 4)							
Property			Test Method:	Requirements by Performance Grade						
				58-28	64-16	64-22	70-16	64-28NV	76-22NV	
ORIGINAL										
Flash Point, °C			T48	230 min.						
Rotational Viscosity, Pa·s		135°C	D4402	3.00 max.						
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec)		At Grade Temperature	T315	1.00 min.					1.30 min.	
Ductility, cm (1)		4°C	Nev. T746F	-			50 min.	20 min.		
Solubility, %			T44	99.0 min.						
Sieve Particulates Retained			Nev. T730	-			0			
Polymer Content, %			(2)	-					3.0 min.	
Toughness and Tenacity		Toughness, in-lbs.	Nev. T745	-			110 min.	-		
		Tenacity, in-lbs.		-			75 min.	-		
RTFO RESIDUE			Nev. T728							
Mass Change, %			Nev. T728	1.00 max.						
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec.)		At Grade Temperature	T315	2.20 min.					-	
Ductility, cm (1)		4°C	Nev. T746	-			25 min.	-		
MSCR, J _{nr3.2} , kPa ⁻¹		76°C	T350 (Note 3)	-					2.00 max.	
MSCR, %Recovery, R3.2									40.0 min.	
MSCR, J _{nr diff} , %									Report	
TABLE 1 CONTINUED ON PAGE 2										

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



PAV RESIDUE		R28	100°C, 20 hrs, 300 psi					110°C, 20 hrs, 300 psi
Dynamic Shear, kPa ($G^* \cdot \sin \delta$, 10 rad./sec.)	At Test Temperature	T315	19°C	28°C	25°C	31°C	22°C	31°C
			5000 max.					
Creep Stiffness, MPa	At Test Temperature	T313	-18°C	-6°C	-12°C	-6°C	-18°C	-12°C
			300 max.					
M-Value			0.300 min.					
NOTES		<ol style="list-style-type: none"> 1. Use pull rate of 5cm/min. 2. Certificates of compliance provided for the material shall certify that the minimum polymer content is present. The department reserves the right to test for polymer content as per AASHTO T302. If testing indicates the minimum polymer content is not present, the material may be no longer conditionally accepted based on certificate of compliance. 3. AASHTO T350 shall be performed individually; not in conjunction with AASHTO T315. 4. Requirements in addition to M320 are shown in red. 						

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Nevada			Table 2: Requirements for Performance-Graded Tire Rubber Modified Asphalt Binders (Note 6)		
Property		Test Method:	Requirements by Performance Grade		
			64-28NVTR (5)	76-22NVTR (5)	
ORIGINAL					
Flash Point, °C		T48	230 min.		
Rotational Viscosity, Pa-s	135°C	D4402	3.00 max.		
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec)	At Grade Temperature	T315	1.00 min.	1.30 min.	
Ductility, cm (1)	4°C	Nev. T746F	50 min.	20 min.	
Solubility, %		T44	96.0 min.		
Sieve Particulates Retained		Nev. T730	0 max.		
Rubber Content, % by mass		(3)	10.0 min.		
Toughness and Tenacity	Toughness, in-lbs.	Nev. T745	110 min.	-	
	Tenacity, in-lbs.		75 min.	-	
RTFO RESIDUE		Nev. T728			
Mass Change, %		Nev. T728	1.00 max.	1.00 max.	
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec.)	At Grade Temperature	T315	2.20 max.	-	
Ductility, cm (1)	4°C	Nev. T746	25 min.	-	
MSCR, J _{nr3.2} , kPa ⁻¹	76°C	T350 (Note 4)	-	2.0 max.	
MSCR, %Recovery, R3.2				40.0 min.	
MSCR, J _{nr diff} , %				Report	
PAV RESIDUE		R28	100°C, 20 hrs, 300 psi	110°C, 20 hrs, 300 psi	
Dynamic Shear, kPa (G* · sin δ, 10 rad./sec.)	At Test Temperature	T315	22°C	31°C	
			5000 max.		
Creep Stiffness, MPa	At Test Temperature	T313	-18°C	-12°C	
			300 max.		
M-Value			0.300 min.		
NOTES		<ol style="list-style-type: none"> Use pull rate of 5cm/min. Sample size 0.50 to 1.00 g. Certificates of compliance provided for the material shall certify that the minimum rubber content is present. AASHTO T350 shall be performed individually; not in conjunction with AASHTO T315. Blend the PG 64-28NVTR or PG 76-22NVTR at the asphalt terminal/refinery and deliver as a completed mixture to the job site. Do not transport by PG 64-28NVTR or PG 76-22NVTR by railroad car. Requirements in addition to M320 are shown in red. 			

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