

State: Florida	Materials: Re: Section 916 Bituminous Materials; 916-2 SUPERPAVE™ PG, Asphalt Binder
Date Last Reviewed: 8/13/25	Web Address: https://www.fdot.gov/programmanagement/implemented/specbooks
State Bituminous Materials Engineer: Jim Musselman, P.E.	Contact Info: jim.musselman@dot.state.fl.us

Asphalt Binder		
Section 916-2.1	Highlights	<p>Florida DOT has implemented MSCR criteria, but has not adopted the standard nomenclature.</p> <p>Superpave PG asphalt binders, identified as PG 52-28, 58-22, 67-22, 76-22 (PMA), 76-22 (ARB), and High Polymer, shall meet the requirements of 916-2. Where PG binder is used in mixes containing reclaimed asphalt pavement (RAP), the requirements of 334-2.3.1, 334-2.3.5, and 334-2.3.6 must also be met. For all PG binder used in all hot mix asphalt, silicone may be added to the PG binder at the rate of 25 cm³ of silicone mixed to each 5,000 gal. of PG binder. The blending of the silicone with the PG binder shall be done by the supplier prior to the shipment. All PG binder for Friction Course mixes and for other HMA products containing RAP shall contain 0.5% heat stable liquid anti-strip additive by weight of PG binder, added by the supplier during loading.</p> <p>Supplier shall have a QC program meeting requirements of 916-2.2.</p>
	PMA Notes	All asphalt binders having a high temperature designation of PG 67 or lower shall be prepared without modification. All PG asphalt binders having a high temperature designation higher than PG 67 shall be produced with an SBS or SB polymer (PMA) or ground tire rubber meeting the requirement of Section 919 (ARB). For modified binders, the base grade, the type of modifier and amount added shall be indicated when applying for inclusion on the Approved Products List.
	Exclusions and Limits	None.

Florida		Table 1: Requirements for Performance-Graded Asphalt Binders (Note 7)					
Property		Test Method: AASTHO (T), ASTM (D) or other	Requirements by Performance Grade				
			52-28	58-22	67-22	76-22 (PMA)	76-22 (ARB)
ORIGINAL							
Flash Point, ° F		T 48	450 min.				
Rotational Viscosity, Pa·s (1)	135° C (275° F)	T 316	3.0 max.				
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec) (2)	At Grade Temperature	T 315	1.00 min.				
Phase Angle, °			-	-	75.0 max.	-	
Solubility, % minimum		T44	99.0			-	99.0
Separation of Polymer, ° F (6)		D7173	-			15 max.	-
RTFO RESIDUE		T 240					
Mass Change, %		T 240	1.00 max.				
MSCR Test Temperature			52° C	58° C	67° C		76° C
MSCR, J _{nr,3.2} (kPa ⁻¹) (2)	M 332 / T 350		"S"		"V"		
			4.5 max.		1.0 max.		0.10 max.
MSCR, J _{nr,diff} (%) (2,5)			75 max.				
MSCR, %R _{3.2} (2)			-	≥ 29.371 (J _{nr,3.2}) ^{-0.2633}			≥ 90.0

Table 1 Continues on Page 2

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



<i>Florida</i>		Table 1: Requirements for Performance-Graded Asphalt Binders (cont.)					
Property		Test Method: AASHTO (T), ASTM (D) or other	Requirements by Performance Grade				
			52-28	58-22	67-22	76-22 (PMA)	76-22 (ARB)
PAV RESIDUE		R 28	90° C	100° C			
Dynamic Shear, kPa ($G^* \cdot \sin \delta$, 10 rad./sec.)	At Test Temperature	T 315	16° C	22° C	26.5° C		
			6000 max.				
Creep Stiffness, MPa	At Test Temperature	T 313	-18° C	-12° C			
			300 max.				
m-Value			0.300 min.				
ΔT_c		ASTM D7643	$\geq -5.0^\circ \text{C}$				
Notes		<ol style="list-style-type: none"> Binders with values higher than 3 Pa-s should be used with caution and only after consulting with the supplier as to any special handling procedures, including pumping capabilities. AASHTO T 315 and AASHTO T 350 will be performed at a 2 mm gap for PG 76-22 (ARB) PPA is not allowed in High Polymer. Test temperature for High Polymer is 76° C. A maximum Jnr diff = 75% does not apply for any Jnr value $\leq 0.50 \text{ kPa}\cdot\text{s}$. Follow ASTM D7173 for sample conditioning and perform Softening Point per AASHTO T 53 on the top and bottom of tube sample. Requirements in addition to M332 are shown in red. 					

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