

State: SOUTH DAKOTA	Materials: Re: Section 890.2 (D) - Asphalt Materials
Date Last Reviewed: 12-21-2010	Web Address: www.sddot.com
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ASPHALT BINDER:

Section 890.2 (D)	Description:	Performance-Graded Asphalt Binder shall conform to AASHTO Performance Graded Binder Specifications M 320 and the Combined State Binder Group Method of Acceptance for Asphalt Binders available from the SD DOT Bituminous Engineer.
	PMA's:	The asphalt binder shall, if necessary, be blended at the terminal with permissible additives styrene-butadiene styrene (SBS) or styrene-butadiene rubber (SBR) necessary to meet the specifications. The type of modifier supplied shall be listed on the certificate of compliance.
	Exclusions:	Air blown asphalts, acid modifiers, and other modifiers will not be allowed.

PROPERTY		Test Method AASHTO or Other	Requirements by Performance Grade, PG					
			58-34	64-34	64-22	64-28	70-34	70-28
ORIGINAL:								
Specific Gravity	15.6°C 25.0°C (AMRL, CSBG)	ASTM D 70	Report					
Flash Point, °C		T 48	230 min.					
Rotational Viscosity, Pa •s	135°C	T 316	3.0 max.					
Dynamic Shear, kPa (G* / sin δ, 10 rad./sec.)	At grade temperature	T 315	1.0 min.					
RTFOT RESIDUE:								
Mass Loss, %		T 240	1.0 max.					
Dynamic Shear, kPa (G* / sin δ, 10 rad./sec.)	At grade temperature	T 315	2.2 min.					
PAV RESIDUE:		R 28	100°C; 20 hrs; 305 psi					
Dynamic Shear, kPa (G* • sin δ, 10 rad./sec.)	At test temperature	T 315	5,000 max.					
			16°C	19°C	25°C	22°C	25°C	
Creep Stiffness	At test temperature	T 313	Stiffness 300 max. MPa & m Value 0.300 min.					
			-24°C	-12°C	-18°C	-24°C	-18°C	
Direct Tension, (1mm/min.), % Strain		T 314	No Requirement					
PG PLUS REQUIREMENTS: YES – see PMA's.								
RTFOT RESIDUE:								
Elastic Recovery, %	25°C	T 301	60 min.	--	60 min.			
NOTES: None.								

