

State: WYOMING	Materials: Re: Section 400 - Bituminous Materials
Date Last Reviewed: 5-9-2011	Web Address: www.dot.state.wy.us
Materials Engineer: Bruce Morgenstern	Contact Info: bruce.morgenstern@dot.state.wy.us

ASPHALT BINDER:

Section 400	Description:	The Performance Grade Asphalt Binder shall consist of an asphalt binder that is produced from petroleum residue either with or without the addition of polymer modifiers. The base asphalt binder shall be homogeneous, free from water and deleterious materials, and shall not foam when heated to 350°F.
	PMA's:	May be any polymer dissolved dispersed or reacted in AC to enhance performance. May not be carcinogenic. No fibers or other discrete particles \geq 250 microns in size
	PPA's:	Max. 0.50% polyphosphoric acid measured as ppm with max. of 1900 ppm

PROPERTY	Test Method AASHTO or Other	Requirements by Performance Grade, PG (Common Grades)					
		58-28		64-28	64-22	70-28	76-28
ORIGINAL:							
Specific Gravity	15.6°C	ASTM D 70	Report				
Flash Point, °C		T 48	230 min.				
Rotational Viscosity, Pa Xs	135°C	T 316	3.0 max.				
Dynamic Shear, kPa (G* / sin *, 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 *, 10 rad./sec.)	At grade temperature	T 315	2.2 min.				
PAV RESIDUE:							
		R 28	100°C; 20 hrs; 300 psi				
Creep Stiffness	At test temperature	T 313	Stiffness 300 max. MPa & m Value 0.300 min.				
			-18°C		-18°C	-12°C	-18°C
Direct Tension, (1mm/min.), % Strain		T 314	No Requirement				
PG PLUS REQUIREMENTS: YES							
RTFOT RESIDUE:							
Elastic Recovery, %, T301*	25°C	D 6084	60 min.	--	60 min.	--	60 min.
NOTES: * Eliminate wait prior to cutting specimen							
1. Elastic Recovery required on all grades where difference between high and low grades is 90+.							

