

State: PENNSYLVANIA	Materials: Re: Pub. 408, Section 702 - Bituminous Materials
Date Last Reviewed: 7-20-2010	Web Address: www.dot.state.pa.us
Materials Engineer: Robert D. Horwhat	Contact Info:

ASPHALT BINDER:

Pub. 408, Section 702 & Pub. 37	Description:	PA DOT only recognizes one standard grade of PG 76-22. It is in fact required to be neat asphalt binder modified with SB or SBS polymers only. Consistent with previous point, Acid, Oxidation, and any other modifiers are not permitted (with the exception of anti-strip agents).
	PMA's:	SB or SBS block copolymers
	Exclusions:	Acid, Air Blown, or any other modifier without preapproval as an experimental binder.

PROPERTY	Test Method AASHTO or Other	Requirements by Performance Grade, PG (Common Grades)		
		58-28	64-22	76-22
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 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; 300 psi
Dynamic Shear, kPa G* • sin δ, 10 rad./sec.)		At test temperature	T 315	5,000 max.
				19°C 25°C 25°C
Creep Stiffness		At test temperature	T 313	Stiffness 300 max. MPa & m Value 0.300 min.
				-18°C -12°C
Direct Tension, (1mm/min.), % Strain			T 314	No Requirement
PG PLUS REQUIREMENTS: YES – See Description				
ORIGINAL:				
Separation, Softening Point Difference, 48 hours, °C		163°C	ASTM D 5976 (inactive)	--- 2.2 max.
RTFOT RESIDUE:				
Elastic Recovery, 10 cm, %		25°C	ASTM D 6084	--- 60 min.
NOTES:				
See Bulletin 25 (pub 37) for complete binder specifications				

