

State: COLORADO	Materials: Re: Section 702 SUPERPAVE PG Binders, CDOT's Standard Specifications for Road & Bridge Construction
Date Last Reviewed: 03/12/10	Web Address: www.colorado.gov
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ASPHALT BINDER:

702.01 (b)	Description:	Supplier must be certified in accordance with CP 11. Samples of PG Binder for acceptance shall be sampled on the project as stated in the Schedule of Field Materials Manual.
702.01 (a)	PMA's	None stated.
	Exclusions:	Asphalt shall not be Acid or Alkaline modified. Shall not contain any used oils that have not been re-refined or reprocessed. No modifiers shall be added that do not comply with Environmental rules and regulations including 40 CFR Part 261.6(a)(3)(v) and 266/Subpart C. Modifiers shall not be carcinogenic.

PROPERTY	Test Method AASHTO or Other	Requirements by Performance Grade, PG (Common Grades)					
		58-28	58-34	64-22	64-28	70-28	76-28
ORIGINAL:							
Flash Point, °C	T 48	230 min.					
Rotational	135°C TP 48	3.0 max.					
Dynamic Shear, kPa (G* /sin *, 10 rad./sec.)	At grade temperature T 315	1.0 min.					
RTFOT RESIDUE:							
Mass Loss, %	CP - 2215	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				
Dynamic Shear, kPa (G* • sin *, 10 rad./sec.)	At test temperature T 315	5,000 max.					
		19°C	16°C	25°C	22°C	25°C	28°C
Creep Stiffness	At test temperature T313	Stiffness 300 max. MPa & m Value 0.300 min.					
		-18°C	-24°C	-12°C	-18°C		

PG PLUS REQUIREMENTS: YES

ORIGINAL:							
Ductility, (5 cm/min.), cm	4°C	T 51	--	--	--	50 min.	--
Toughness & Tenacity	Toughness, Tenacity, N-	25°C CP L 2210	--	--	--	110 min. (12.4)	--
			--	--	--	75 min. (8.5)	--
Acid or Base Modification ¹		CP L 2214	Pass				
RTFOT PROPERTIES:							
Elastic Recovery, %	25°C	T 301	--	--	--	--	50 min.
Ductility, cm (5 cm/min.)		T 51	--	--	--	20 min, 4°C.	--

Notes:

1. The Department will test for acid and alkaline modification during binder certification process. Thereafter, the Department will randomly test for acid and alkaline modification.

