Province: British Columbia	**Materials:** Asphalt Cements
Date Last Reviewed: July 15, 2025	**Web Address:** https://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/transportation-and-infrastructure
Materials Engineer: Manoj Jogi	**Contact Info:** Manoj.Jogi@gov.bc.ca

Asphalt Binder		
	Highlights	Specification includes requirements for pen grade and performance grade
	PMA Notes	MSCR R3.2 at 58°C required for: 58-40, 58-37, 58-34, 64-37, 64-34, 64-28, 70-28, 76-28
	Exclusions and Limits	None listed.

British Columbia		**Table 1: Requirements for Performance-Graded Asphalt Binders** (Note 1)											
Property		**Test Method: AASTHO (T), ASTM (D)**	**Requirements by Performance Grade**										
			52-34	**58-28**	**58-34**	**58-37**	**58-40**	**64-22**	**64-28**	**64-34**	**64-37**	**70-28**	**76-28**
ORIGINAL													
Flash Point, °C		T48	230 min.										
Solubility, %		T44	99.0 min.										
Rotational Viscosity, Pa·s	135 °C	T316	3.00 max.										
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec)	At Grade Temp.	T315	1.00 min.										
RTFO RESIDUE		T240											
Mass Loss, %		T240	1.00 max.										
Dynamic Shear, kPa (G*/sin δ, 10 rad./sec.)	At Grade Temp.	T315	2.20 min.										
MSCR, % Recovery @ 3.2kPa, $R_{3.2}$	58°C	T350	-	-	25	40	40	-	25	40	55	40	55
PAV RESIDUE		R28	100 °C										
Dynamic Shear, kPa (G* · sin δ, 10 rad./sec.)	At Test Temp.	T315	13 °C	19 °C	16 °C	14.5 °C	13 °C	25 °C	22 °C	19 °C	17.5 °C	25 °C	28 °C
			5000 max.										
Creep Stiffness, MPa	At Test Temp.	T313	-24 °C	-18 °C	-24 °C	-27 °C	-30 °C	-12 °C	-18 °C	-24 °C	-27 °C	-18 °C	-18 °C
			300 max.										
M-Value			0.300 min.										
NOTES		1. Requirements in addition to M320 are shown in red.											

British Columbia			Table 3: Penetration Grades of Asphalt Cement (PG Equivalent)			
Property		**Test Method: AASTHO (T), ASTM (D) or other**	**Requirements by Penetration Grade Asphalt Cement**			
			200 – 300A (PG 52-34)	**150 – 200A (PG 58-28)**	**120 – 150A (PG 58-28)**	**80 – 100A (PG 64-22)**
ORIGINAL						
Flash Point, °C		D92	175 min.	220 min.	220 min.	230 min.
Penetration, tenths of mm	25 °C	D5	200 - 300	150 - 200	120 - 150	80 - 100
Ductility, cm	25 °C	D113	-	100 min.	-	100 min.
Ductility, cm	15 °C	D113	100 min.	-		
Viscosity, Poise — Group A, B, C	60 °C	D2171	Table 4			
Solubility, %		D2042	99.5 min.			
RTFO RESIDUE		T240				
Penetration of Residue, % of original	25 °C	D5	45 min.	50 min.	47 min.	55 min.
Mass Loss %		D1754	1.50 max.	1.30 max.	0.85 max.	0.80 max
NOTES		1. Viscosity at 60°C and penetration at 25°C fall within requirements outlined in Table 4.				

British Columbia	Test Method	Table 4: Viscosity and Penetration Values Defining Group Boundaries					
Penetration, 100g, 5s, tenths of mm, 25°C	ASTM D 5	80	100	120	150	200	300
Group	ASTM D 2171	Minimum Viscosity at 60°C, Poise					
A		150	115	91	70	50	31
B		110	85		-	-	-
C		75	55		-	-	-