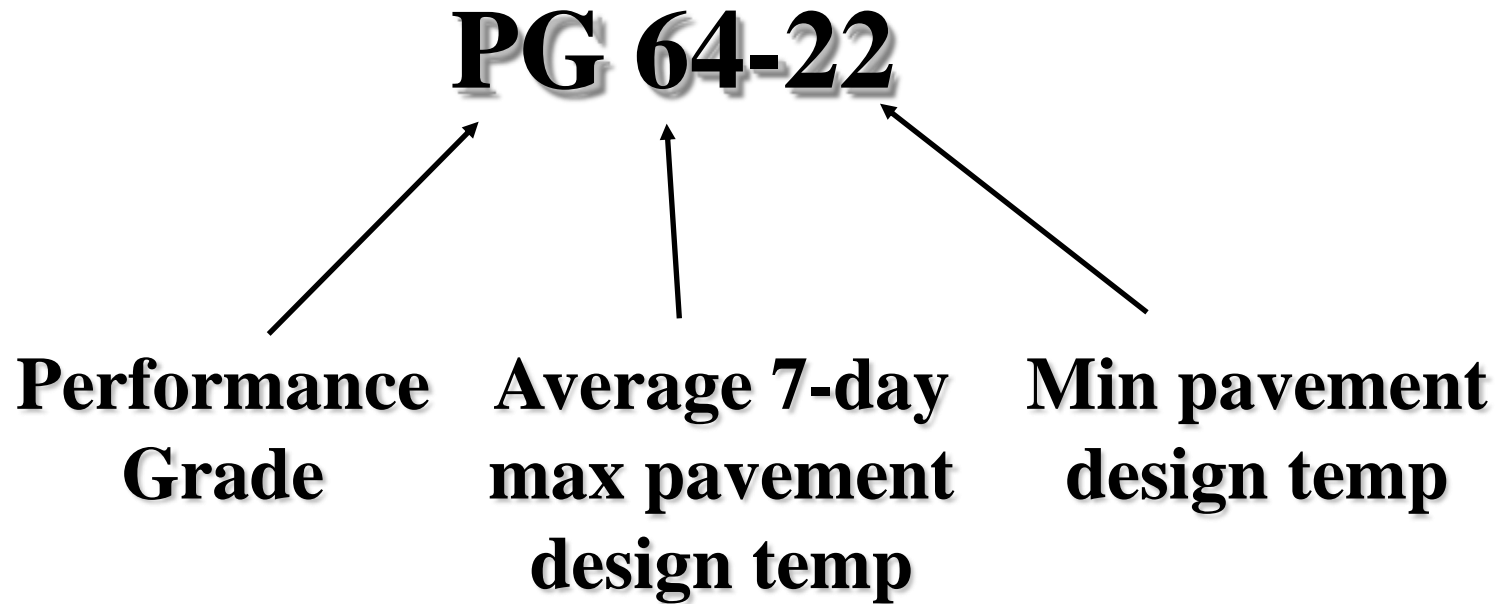


Superpave Asphalt Binder Specification








- Grading System Based on Climate



ODOT Performance Graded Asphalt Binder Schedule

PG 58-28	Lt. traffic; blending with high RAP mixes
PG 64-22	Med. & Lt. traffic
PG 64-28	Hvy. traffic Intermediate course mixes
PG 70-22M (“M” denotes polymer modified)	Hvy. traffic, (Med. & Lt. for added durability)
PG 76-22M (“M” denotes polymer modified)	High Stress locations; Specialty Mixes such as Item 424

Performance Grades

Avg 7-day Max, °C	PG 46			PG 52			PG 58			PG 64			PG 70			PG 76			PG 82																		
1-day Min, °C	-34	-40	-46	-10	-16	-22	-28	-34	-40	-46	-16	-22	-28	-34	-40	-10	-16	-22	-28	-34	-40	-10	-16	-22	-28	-34	-40	-10	-16	-22	-28	-34					
ORIGINAL																																					
 ≥ 230 °C	(Flash Point) FP																																				
 ≤ 3 Pa·s @ 135 °C	(Rotational Viscosity) RV																																				
 ≥ 1.00 kPa	(Dynamic Shear Rheometer) DSR $G^*/\sin \delta$																																				
	46	52			58			64			70			76			82																				
(ROLLING THIN FILM OVEN) RTFO Mass Loss ≤ 1.00 %																																					
 ≥ 2.20 kPa	(Dynamic Shear Rheometer) DSR $G^*/\sin \delta$																																				
	46	52			58			64			70			76			82																				
(PRESSURE AGING VESSEL) PAV																																					
20 Hours, 2.07 MPa	90	90			100			100			100 (110)			100 (110)			110 (110)																				
 ≤ 5000 kPa	(Dynamic Shear Rheometer) DSR $G^* \sin \delta$																																				
	10	7	4	25	22	19	16	13	10	7	25	22	19	16	13	31	28	25	22	19	16	34	31	28	25	22	19	37	34	31	28	25	40	37	34	31	28
$S \leq 300$ MPa  $m \geq 0.300$	(Bending Beam Rheometer) BBR "S" Stiffness & "m"- value																																				
	-24	-30	-36	0	-6	-12	-18	-24	-30	-36	-6	-12	-18	-24	-30	0	-6	-12	-18	-24	-30	0	-6	-12	-18	-24	-30	0	-6	-12	-18	-24	0	-6	-12	-18	-24
Report Value	(Bending Beam Rheometer) BBR Physical Hardening																																				
 ≥ 1.00 %	(Direct Tension) DT																																				
	-24	-30	-36	0	-6	-12	-18	-24	-30	-36	-6	-12	-18	-24	-30	0	-6	-12	-18	-24	-30	0	-6	-12	-18	-24	-30	0	-6	-12	-18	-24	0	-6	-12	-18	-24