

Consistency Grades for Lubricating Greases

NLGI Grade	Worked Penetration Range mm/10
000.....	445-475
00.....	400-430
0.....	355-385
1.....	310-340
2.....	265-295
3.....	220-250
4.....	175-205
5.....	130-160
6.....	85-115

The following classification is for fluid and semi-fluid greases

F Grade	SIL Consistency Number
F.....	1245-1375
2F.....	1075-1145
3F.....	935- 985
4F.....	825- 865
5F.....	725- 765
6F.....	635- 655
7F.....	555- 585
8F.....	480- 510

AGMA Lubricant Numbers*

AGMA Lubricant Number	Viscosity Range	
	Common SSU/100°F	Metric cSt/37.8°C
1	193-235	41.4-50.6
2	284-347	61.2-74.8
3	417-510	90-110
4	626-765	135-165
5	918-1122	198-242
6	1335-1632	288-352
7 Comp.	1919-2346	414-506
8 Comp.	2837-3467	612-748
8A Comp.	4171-5098	900-1100

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8 EP	2837-3467	900-1100

*Viscosity ranges for AGMA Lubricant Numbers are based on ASTM D 2422 test method.

International Organization for Standardization (ISO) Viscosity Classification System for Industrial Fluid Lubricants

SAE Viscosity Classification for Axle and Manual Transmission Lubricants

SAE Viscosity Number	Maximum Temperature for Viscosity of 150,000 cP (150 Pa·s)		Viscosity at 210°F (99°C)					
			Minimum			Maximum		
	°F	°C	cSt	SSU ^a	m ² /s	cSt	SSU ^a	m ² /s
75	-40	-40	4.2	40	4.2	—	—	—
80W	-15	-26	7.0	49	7.0	—	—	—
85W	+10	-12	11.0	63	11.0	—	—	—
90	—	—	14.0	74	14.0	<25	120	25
140	—	—	25.0	120	25.0	<43	200	43
250	—	—	43.0	200	43.0	—	—	—

^aApproximate

Note: One pascal · second (Pa · s) equals 10³ centipoise (cP).

One meter²/second (m²/s) equals one centistoke (cSt).

ISO Viscosity Grade Numbers	Viscosity Grade Ranges	
	Centistokes at 40°C	
	Minimum	Maximum
2	1.98	2.42
3	2.88	3.52
5	4.14	5.06
7	6.12	7.48
10	9.00	11.0
15	13.5	16.5
22	19.8	24.2
32	28.8	35.2
46	41.4	50.6
68	61.2	74.8
100	90.0	110
150	135	165
220	198	242
320	288	352
460	414	506
680	612	748
1,000	900	1,100
1,500	1,350	1,650

Note: The viscosity grade numbers for the ISO System are identical to those shown for the ASTM /BSI System (in centistokes). The viscosity of the ISO grades, however, is measured at 40°C instead of 100°F (37.8°C), which results in a slightly more viscous lubricant for each corresponding grade.