

BB00.40-P-0211-00A	SAE viscosity classes of engine/ transmission oils	Sheet 211.0 i (All values are crit. specifications as per ASTM D 3244), 1 cP = 1 mPa s; 1 cSt = 1 mm ² /s	
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MODEL ALL

Engine oil – SAE J300, revised April 2013 (only an extract, original standard available at <http://standards.sae.org>)

SAE- viscosity classes	Low-Temperature (°C) Cranking Viscosity (ASTM D 5293) (mPa s) max.	Low-Temperature (°C) Pumping Viscosity (ASTM D 4684) (mPa s) With no yield stress max.	Low-Shear-Rate Kinematic Viscosity (ASTM D 445) (mm ² /s) At 100 °C		High-Shear-Rate Viscosity (ASTM D 4683, CEC L-36-A-90 (ASTM D 4741), ASTM D 5481) (mPa s) s For 150 °C and 10 ⁶ s ⁻¹ min.
			min.	max.	
0W	6200 at – 35	60,000 at – 40	3.8	–	–
5W	6600 at – 30	60,000 at – 35	3.8	–	–
10W	7000 at – 25	60,000 at – 30	4.1	–	–
15W	7000 at – 20	60,000 at – 25	5.6	–	–
20W	9500 at – 15	60,000 at – 20	5.6	–	–
25W	13,000 at – 10	60,000 at – 15	9.3	–	–
16	–	–	6.1	< 8.2	2.3
20	–	–	6.9	<9.3	2.6
30	–	–	9.3	<12.5	2.9
40	–	–	12.5	<16.3	2.9 (0W-40, 5W-40, 10W-40)
40	–	–	12.5	<16.3	3.7 (15W-40, 20W-40, 25W-40, 40)
50	–	–	16.3	<21.9	3.7
60	–	–	21.9	<26.1	3.7

Gear oils - SAE J 306, 2005 extract			
Automotive Gear Lubricant Viscosity Classification			
SAE Viscosity Grade	Max. Temperature for Viscosity of 150,000 cP (°C) ^{1.)}	Kinematic viscosity at 100 °C (cSt) Using ASTM D 445	
		min.	max.
	ASTM D 2983	ASTM D 445 ^{2.)}	ASTM D 445
70W	- 55 ^{3.)}	4.1	-
75W	- 40	4.1	-
80W	-26	7.0	-
85W	-12	11.0	-
80	-	7.0	<11.0
85	-	11.0	<13.5
90	-	13.5	< 18.5
110	-	18.5	<24.0
140	-	24.0	< 32.5
190	-	32.5	<41.0
250	-	41.0	-

- 1 Using ASTM D 2983, additional low-temperature viscosity requirements may be appropriate for fluids intended for use in light-duty synchronized manual transmission
- 2 Limit must also be met after testing in CEC I-45-T-93, Method C (20 hours)

- 3 The precision of ASTM D 2983 has not been established for determinations made at temperatures below - 40 °C. This fact should be taken into consideration in any producer-consumer relationship.