

## SAE VISCOSITY GRADES FOR ENGINE OILS

(SAE J300 December 99)

Low Temperature Requirements			High Temperature Requirements		
Viscosity Grade	<sup>3</sup> Maximum Cranking Viscosity (cP)	<sup>4</sup> Maximum Pumping Viscosity (cP)	<sup>5</sup> Minimum Kinematic Viscosity (cSt @ 100°C)	<sup>5</sup> Maximum Kinematic Viscosity (cSt @ 100°C)	<sup>6</sup> High Shear Viscosity (cP) at 150°C
0W	6200 @ -35°C	60000 @ -40°C	3.8		
5W	6600 @ -30°C	60000 @ -35°C	3.8		
10W	7000 @ -25°C	60000 @ -30°C	4.1		
15W	7000 @ -20°C	60000 @ -25°C	5.6		
20W	9500 @ -15°C	60000 @ -20°C	5.6		
25W	13000 @ -10°C	60000 @ -15°C	9.3		
20			5.6	<9.3	2.6
30			9.3	<12.5	2.9
40 <sup>1</sup>			12.5	<16.3	3.3
40 <sup>2</sup>			12.5	<16.3	3.7
50			16.3	<21.9	3.7
60			21.9	<26.1	3.7

<sup>1</sup> 0W-40, 5W-40, 10W-40 Oils

<sup>2</sup> 15W-40, 20W-40, 25W-40, 40 Oils

<sup>3</sup> ASTM D5293 – Cold Cranking Simulator

<sup>4</sup> ASTM D4684 – Mini Rotary Viscometer

<sup>5</sup> ASTM D445 – Kinematic Viscosity

<sup>6</sup> ASTM D4683, ASTM D4741, CEC L-36-A-90 – High Temperature High Shear