

## VISCOSITY CHART

Viscosity is a very important guide to what is happening with the oil. Viscosity is reported in Centistokes (see Chart Below). The reason that it is reported in cSt is to give you a guide as to where your oil is in any given SAE grade. It's like breaking a foot measurement into inches.

Oil is tested at two temperatures, 100°C and 40°C. Engine oil are tested and all non ISO oils are tested at 100°C. The chart below indicates the relationship between the cSt number reported and the SAE grade. When a multi weight is reported the number given reflects the actual weight, for example a 15/40 is reported at the 40 weight. On the chart below we have only used the actual weight of the oil which is the higher number given on a multi viscosity oil.

A note, for those who see the “W” on the rating, and assume that it reflects the word weight. Actually it stands for “Winter” which is how the oil reacts to low and high temps.

ISO or industrial oils are tested at 40°C and should be within 10% of the value of the oil. An example is and ISO 68 oil should range from 61 to 75. An oil in this range is acceptable as an ISO 68.

Viscosity Index (not included in the basic oil analysis) determines if an oil is a multi weight or a straight weight. The oil is tested at both 40°C and 100°C and a calculation is made to determine the VI. For mono grade (straight) the VI is usually lower than that of a multi grade. For example a straight 40 weight oil would have a VI of about 110 and a 15/40 would be in the range of 140.

SAE weight	cSt from	To
10	4.1	5.59
20	5.6	9.29
30	9.3	12.49
40	12.5	16.29
50	16.3	21.89
60	21.9	26.89
90 Gear	11	23
140 Gear	21	30