



What is “SAE”?

“SAE” is the abbreviation of “Society of Automotive Engineers”. This society of engineers of the American automobile industry presents an independent association taking responsibility for the standardization and classification in the American automobile construction. Among other things, the “SAE” also has taken over to lay down the car motor oils and gear oils into viscosity grade worldwide.

The SAE viscosity grade are only a measure for the viscosity of the lubricant oils and do not give any statement about the quality and compounds of the motor and gear oils.

There are the following viscosity grades:

Single grade motor oils

Viscosity grade	Field of application relating to climatic zone or season	Field of application relating to approx. outdoor temperatures
SAE 0W	Winter oil	below -35 °C
SAE 5W	Winter oil	below -30 °C
SAE 10W	Winter oil	0 to -20 °C
SAE 15W	Winter öl	-15 to + 20 °C
SAE 20W-20	Winter – summer oil, acc. to climatic zone	-10 to + 20°C
SAE 25 W	Winteröl in climatic mild zones	0 to + 30 °C
SAE 30	Summer oil	0 to + 30 °C
SAE 40	Summer oil, application in southern countries	+15 to + 40 °C
SAE 50	Summer oil, application in tropical countries	above + 40 °C

Multigrade motor oils

Viscosity grade	Field of application relating to climatic zone or season	Field of application relating to approx. outdoor temperatures
SAE 0W/30	All-season oil	below -30 to + 30 °C
SAE 0W/40	All-season oil	below -30 to + 40 °C
SAE 5W-30	All-season oil	below -20 to + 20 °C
SAE 5W-40/50	All-season oil	below -20 to + 40 °C
SAE 10W-30	All-season oil	-20 to + 20 °C
SAE 10W-40/50	All-season oil	-20 to + 40 °C
SAE 15W-40/15W50	All-season oil	-15 to + 40 °C
SAE 20W-50	All-season oil	-10 to + 40 °C

Car gear oils

Single grade gear oils

Viscosity grade	Field of application relating to climatic zone or season
SAE 70W	Special oil for Nordic countries
SAE 75W	Winter oil
SAE 80W	Winter oil
SAE 90	Summer oil
SAE 140	Summer oil for special application

Multigrade gear oils

Viscosity grade	Field of application relating to climatic zone or season
SAE 75W-90	All-season oil
SAE 75W-140	All-season oil
SAE 80W-90	All-season oil
SAE 85W-140	All-season oil /summer oil

Remark:

At car gear oils the choice of SAE classe is rarely chosen according to the climatic zone or outdoor temperatures but according to the method of gears, for instance gearbox, driving axle, outer planet axle etc. Therefore, the service instructions have to be kept strictly.

Single grade oils are designed for only one SAE field. Multigrade oils contain several SAE fields.