

ISO and SAE viscosity classes: A comparison

A number of different standards are used in the trade to identify viscosity (flowability). Industrial lubricants are normally identified according to the European ISO-VG standard (VG = viscosity grade), the figure given being the average viscosity at 40 °C. With vehicle lubricants, on the other hand, the American SAE classes have become dominant (SAE = Society of Automotive Engineers). Motor oils are arranged in classes from 0W (very low viscosity) to 60 (very high viscosity). The number range 70W to 140 has been created for gear oils.

The following table offers a comparison and classification between industrial lubrications and motor or gear oils in terms of their viscosity.

ISO-VG	SAE-Klassen	
Industrieöle	Motorenöle	Getriebeöle
5	0 W	
7		
10		
15	5 W	70 W
22	10 W	
32	15 W	75 W
46	20 W	
68	25 W	
100	20	80 W
150	30	
220	40	85 W
320	50	
460	60	90
680		
1000		140
1500		
		250