

## ASTM VISCOSITY SYSTEM FOR INDUSTRIAL FLUID LUBRICANTS (ASTM D2422-75)

This system was originated to provide a suitable number of viscosity grades for industrial fluid lubricants so that lubricant suppliers, lubricant users, and equipment designers would have a uniform and common basis for designating such lubricants. Each grade is designated by its nominal value in centistokes (metric units) at 40°C. The viscosity range for each grade is +10% of the nominal viscosity number.

This system applies only to viscosity and has nothing to do with lubricant quality. It does not apply to lubricants used primarily with automotive equipment and identified by an SAE viscosity number.

The complete ASTM D2422 grading system is shown.

### ASTM D 2422 VISCOSITY SYSTEM FOR INDUSTRIAL FLUID LUBRICANTS

| Viscosity<br>System Grade<br>Identification | Mid-Point Viscosity<br>At 40°C<br>Approximate Equivalents |      | Kinematic<br>Viscosity Limits<br>cSt(mm <sup>2</sup> /s) |      |
|---|---|------|--|------|
|   | cSt(mm <sup>2</sup> /s)                                   | SUS  | Min.   | Max. |
| ISO VG2                                     | 2   | 32   | 1.98   | 2.42 |
| ISO VG3                                     | 3   | 36   | 2.88   | 3.52 |
| ISO VG5                                     | 5   | 40   | 4.14   | 5.06 |
| ISO VG7                                     | 7   | 50   | 6.12   | 7.48 |
|   |   |      |  |      |
| ISO VG 10                                   | 10  | 60   | 9  | 11   |
| ISO VG 15                                   | 15  | 75   | 13.5   | 16.5 |
| ISO VG 22                                   | 22  | 105  | 19.8   | 24.2 |
| ISO VG 32                                   | 32  | 150  | 28.8   | 35.2 |
| ISO VG 46                                   | 46  | 215  | 41.4   | 50.6 |
| ISO VG 68                                   | 68  | 315  | 61.2   | 74.8 |
|   |   |      |  |      |
| ISO VG 100                                  | 100   | 465  | 90   | 110  |
| ISO VG 150                                  | 150   | 700  | 135  | 165  |
| ISO VG 220                                  | 220   | 1000 | 198  | 242  |
| ISO VG 320                                  | 320   | 1500 | 288  | 352  |
| ISO VG 460                                  | 460   | 2150 | 414  | 506  |
| ISO VG 680                                  | 680   | 3150 | 612  | 748  |