

TYPICAL PROPERTIES OF ACETALS

| ASTM or UL Test | Property | Copolymer | Homopolymer |
|--------------------|--|------------------|-----------------------------|
| PHYSICAL | | | |
| D792 | Specific gravity | 1.41 | 1.42 |
| D792 | Specific volume (in ³ /lb) | 19.7 | 19.5 |
| D570 | Water absorption , 24 h, 1/8-in thk (%) | 0.22 | 0.25 |
| MECHANICAL | | | |
| D638 | Tensile strength* (psi) | | |
| | At 73°F | 8,800 | 10,000 |
| | At 160°F | 5,000 | 6,900 |
| D638 | Elongation* | 55 | 40 |
| D638 | Tensile modulus (10 ⁵ psi) | 4.1 | 5.2 |
| D790 | Flexural strength (psi) | 13,000 | 14,100 |
| D790 | Flexural modulus (10 ⁵ psi) | | |
| | At 73°F | 3.75 | 4.10 |
| | At 160°F | 1.80 | 2.30 |
| D256 | Impact strength , Izod (ft-lb/in) | | |
| | Notched | 1.3 | 1.4 |
| | Unnotched | 20 | 24 |
| D671 | Fatigue endurance limit , 10 ⁷ cycles (psi) | 3,300 | 4,300 |
| D785 | Hardness , Rockwell M | 80 | 94 |
| FRICTIONAL | | | |
| — | Coefficient of friction | | |
| | Self | 0.35 | 0.3 |
| | Against steel | 0.15 | 0.15 |
| THERMAL | | | |
| C177 | Thermal conductivity (10 ⁴ cal-cm/sec-cm ² -°C) | 5.5 | 8.9 |
| | (Btu-in/hr-ft ² -°F) | 1.6 | 2.6 |
| D696 | Coefficient of thermal expansion -40 to +185°C (10 ⁻⁵ in/in-°C) | 8.5 | 10.0 |
| D648 | Deflection temperature (°F) | | |
| | At 264 psi | 205 | 277 |
| | At 66 psi | 316 | 300 |
| UL94 | Flammability rating | HB | HB |
| ELECTRICAL | | | |
| D149 | Dielectric strength , Short time (V/mil) | | |
| | 5 mils | 2,100 | 3,000 |
| | 20 mils | — | 2,000 |
| | 90 mils | 500 | 500 |
| D150 | Dielectric constant | | |
| | At 1 kHz | 3.7 | 3.7 |
| | At 1 MHz | 0.006 | 0.005 |
| D257 | Volume resistivity (ohm-cm) | | |
| | At 73°F, 50% RH | 10 ¹⁴ | 10 ¹⁵ |
| D495 | Arc resistance (s), 120 mils | 240 (burns) | 220 (burns, no tracking) |

*At 0.2 in/min loading rate