

Material Properties

General Purpose Polyurethane

Material code: 2001

Polyurethane combined the elasticity of rubber and durability of metal together to offer excellent abrasion resistance and tensile strength. Compare with rubber, it has better abrasion and tensile resistance. Compared to plastics, it offers much better impact resistance and excellent wear properties and elastic memory. By using polyurethanes to replace metals, it has benefits such as weight reduction, noise abatement and improved wear resistance.

| Physical Properties | ASTM Method | Typical Values |
|--|-------------|-------------------------|
| Specific Gravity | D792 | 1.26 gr/cm ³ |
| Water Absorption (24 hrs. @ 74°F) | D570 | N/A |
| Color | N/A | Red |
| Mechanical Properties | | |
| Tensile Strength | D412 | 7250 psi |
| Elongation | D412 | |
| • At 600 psi | | 100% |
| • At 1500 psi | | 300% |
| • At Break | | 500% |
| Compression Set Method B (At 158°F for 22 hours) | D395 | 25% |
| Tribological Properties | | |
| Coefficient of friction | D3702 | |
| • Static | | 0.40 |
| • Dynamic | | 0.30 |
| Wear rate (PV: 20,000 psi-fpm) | D3702 | 2.3 uin/min |
| Thermal Properties | | |
| Continuous Service Temperature (Max @ no load) | | 248°F |
| Tear Properties | | |
| Aplit Tear | D470 | |
| • At 77°F | | 140 pil |
| • At 212°F | | 70 pil |
| • At 257°F | | 55 pil |
| Die C Tear | D624 | 400 pil |
| Basehore Rebound | D2632 | 40 |

Note: Property values should be interpreted as typical rather than minimum value. All technical information and recommendations are presented in good faith, and based upon laboratory and real-world tests believe to be reliable and practical. However, K.C. Seals, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customers' responsibility to determine product suitability to any given application.

