

PELLETHANE 2102-65D

Thermoplastic Polyurethane Elastomer

Overview

Applications

| Physical Properties ⁽¹⁾ | Test Method | English Units | SI Units |
|--|-------------|---------------|--------------|
| Hardness Shore D | ASTM D 2240 | 65D | 65D |
| Specific Gravity | ASTM D 792 | 1.22 | 1.22 |
| Melt Flow Rate 224°C/5000g | ASTM D 1238 | -- g/10 min | 49 g/10 min |
| Taber Abrasion, Wt Loss, 1000g wt 1-1000g, H-22 (coarser) | ASTM D 1044 | -- mg | 120 mg |
| Mold Shrinkage, Transverse direction | ASTM D 955 | 0.7 % | 0.7 % |
| Mold Shrinkage, Flow direction | ASTM D 955 | 0.7-0.8 % | 0.7-0.8 % |
| Mechanical Properties ⁽²⁾ | | | |
| Tensile Modulus | ASTM D 412 | | |
| 50% elongation | | 2400 psi | 16.5 MPa |
| 100% elongation | | 2900 psi | 20.0 MPa |
| 300% elongation | | 4500 psi | 31.0 MPa |
| Ultimate Elongation | ASTM D 412 | 390 % | 390 % |
| Ultimate Tensile Strength | ASTM D 412 | 6400 psi | 44.1 MPa |
| Elongation Set After Break | ASTM D 412 | 110 % | 110 % |
| Tear Strength, Die C | ASTM D 624 | 1500 PLI | 263 KN/m |
| Compression Set, Method B 22 hrs @ 25°C | ASTM D 395 | 30 % | 30 % |
| 22 hrs @ 70°C | | 40 % | 40 % |
| Flexural Modulus | ASTM D 790 | 37,000 psi | 255 MPa |
| Thermal Properties | | | |
| Vicat Softening Point (120°C/hr, 9.8N) | ASTM D 1525 | 288 °F | 142 °C |
| CLTE, in-flow, -30 to -80°C | ASTM D 696 | 66.6 in/in/°F | 120 mm/mm/°C |
| Processing Conditions (Typical) | | | |
| Drying Temperature (air dew point <-40C) | | 210-230 °F | 99-110 °C |
| Melt Temperature (Molding) | | 410-430 °F | 210-221 °C |
| Mold Temperature | | 60-140 °F | 16-60 °C |

Notes

1. Typical properties; not to be construed as sales specifications. Fabrication conditions, part design, additives, processing aids, finishing materials, and use conditions can all affect the integrity, performance, and regulatory status of finished goods.
2. Tests conducted on 0.125 inch (3.2 mm) injection molded specimen, unannealed, unless noted.

