



Technical Data Sheet GOil (zelamid)

Yazd polymer

| Properties | POM C | PA 6 | PA G | PA6 GOIL | PA 66 | PA6 GF | Test method |
|--|------------------|------------------|------------------|------------------|------------------|------------------|-------------------------|
| Density | 1.14 | 1.14 | 1.15 | 1.14 | 1.14 | 1.30 | ISO.1183 DIN.53479 |
| Water absorption | 0.2 | 2.8 | 2.4 | 1.5 | 2.6 | 2 | - |
| Absorption 23°C | 0.7 | 9.0 | 7.0 | 4.8 | 8.0 | 5.2 | - |
| Tensile strength at break | 66 | 54 (80) | 58 (85) | 50 (70) | 61 (88) | 100 (130) | ISO.527 DIN.53455 |
| Elongation at break | 50 | 180 (60) | 100 (20) | 120 (35) | 150 (40) | 20 | ISO.527 DIN.53455 |
| Tensile modulus of elasticity | 2700 | 1700 (3000) | 1900 (3400) | 1700 (3100) | 1900 (3200) | 4000 | ISO.527 DIN.53455 |
| Compression test | 14 | 6 (18) | 7 (20) | 6 (19) | 7 (20) | 15 (28) | ISO.899 DIN.533444 |
| Impact strength | n.b | n.b | n.b | n.b | n.b | n.b | ISO.R179 DIN.53453 |
| Notched impact strength chirpy | 9 | 25 (5) | 23 (5) | 25 (8) | 18 (5) | 10 | ISO.179/3C DIN.53453 |
| Ball indentation hardness | 140 | 80 (155) | 100 (165) | 80 (150) | 100 (170) | 170 (210) | ISO.2039.1 DIN.53456 |
| Rockwell hardness | M88 | M85 | M88 | M82 | M89 | M95 | ISO.2039.2 |
| Coefficient of friction to steel | 0.30 | 0.42 | 0.42 | 0.34 | 0.42 | 0.50 | - |
| Melting point | 165 | 220 | 220 | 220 | 255 | 220 | - |
| Thermal conductivity | 0.30 | 0.25 | 0.28 | 0.28 | 0.25 | 0.25 | DIN.52612 |
| Deformation at temp. HDT | 115 | 83 | 96 | 90 | 103 | 150 | ISO.75 DIN.53461 |
| Linear expansion coefficient | 110 | 90 | 80 | 80 | 85 | 50 | - |
| Operating temperature continuously | 110 | 88 | 100 | 100 | 95 | 105 | - |
| Operating temperature Short period no load | +140 | +150 | +160 | +160 | +165 | +170 | - |
| Minimum Operating temperature | -50 | -40 | -30 | -30 | -30 | -30 | - |
| Flammability UL94 | HB | HB V2 | HB V2 | HB | HB V2 | HB V2 | UL94 |
| Oxygen index | 15 | 24 | 25 | 25 | 25 | 24 | ISO.4589 |
| Dielectric constant | 3.8 | 7 (3.6) | 7 (3.7) | 7 (3.7) | 7 (3.6) | 7 (3.6) | ISO.250 DIN.53483 |
| Dielectric strength | 50 | 25 | 30 | 30 | 25 | 25 | ISO.243 DIN.53481 |
| Volume resistivity | 10 ¹⁵ | 10 ¹² | 10 ¹² | 10 ¹² | 10 ¹² | 10 ¹² | ISO.93 DIN.53482 |
| Dissipation factor | 0.01 | 0.06 | 0.05 | 0.05 | 0.06 | 0.06 | ISO.250 DIN.53483 |