



AN EOS COMPANY



PEKK 100

PEKK

Unfilled PEKK combining high impact strength while maintaining high tensile strength.

HIGHLIGHTS

- High chemical resistance at high operating temperatures
- Replacement of injection moulded PA 6 GF (glass fiber filled Polyamide 6)
- High dielectric strength
- Material inherent flame retardancy (UL 94-V0)

APPLICATIONS

- Aerospace
- Mobility industry
- Industrial applications requiring high abrasion resistance and good sliding friction properties



HEADQUARTERS

ALM - Advanced Laser Materials

3115 Lucius McCelvey, Temple, TX 76504

P: 1.254.773.3080

FAX: 1.254.773.3084

E: info@advancedlasermaterials.com

AdvancedLaserMaterials.com

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| TYPICAL PHYSICAL PROPERTIES | | | |
|--|------------------|---------------------------|------------------------|
| PROPERTY | TEST METHOD | IMPERIAL | METRIC |
| Color/Appearance | Visual | Yellowish | Yellowish |
| Tensile Modulus X | ISO 527, Type 1A | 580.150 ksi | 4 GPa |
| Tensile Modulus Y | ISO 527, Type 1A | 580.150 ksi | 4 GPa |
| Tensile Modulus Z | ISO 527, Type 1A | 565.646 ksi | 3.9 GPa |
| Tensile Modulus X | ASTM D638 | 580.150 ksi | 4 GPa |
| Tensile Modulus Y | ASTM D638 | 580.150 ksi | 4 GPa |
| Tensile Modulus Z | ASTM D638 | 565.646 ksi | 3.9 GPa |
| Tensile Strength X (UTS) | ISO 527, Type 1A | 11.748 ksi | 81 MPa |
| Tensile Strength Y (UTS) | ISO 527, Type 1A | 11.748 ksi | 81 MPa |
| Tensile Strength Z (UTS) | ISO 527, Type 1A | 8.702 ksi | 60 MPa |
| Tensile Strength X (UTS) | ASTM D638 | 11.748 ksi | 81 MPa |
| Tensile Strength Y (UTS) | ASTM D638 | 11.748 ksi | 81 MPa |
| Tensile Strength Z (UTS) | ASTM D638 | 8.702 ksi | 60 MPa |
| Strain at Break X | ISO 527, Type 1A | 2.3% | 2.3% |
| Strain at Break Y | ISO 527, Type 1A | 2.3% | 2.3% |
| Strain at Break Z | ISO 527, Type 1A | 1.6% | 1.6% |
| Strain at Break X | ASTM D638 | 2.3% | 2.3% |
| Strain at Break Y | ASTM D638 | 2.3% | 2.3% |
| Strain at Break Z | ASTM D638 | 1.6% | 1.6% |
| Sintered Part Density | ISO 1183-1 | 0.046 lb./in ³ | 1.29 g/cm ³ |
| Charpy Impact Strength, 23°C Notched X | ISO 179-1/eA | - | 2.7 kJ/m ² |
| Charpy Impact Strength, 23°C Notched Z | ISO 179-1/eA | - | 1.7 kJ/m ² |
| Charpy Impact Strength, 23°C Unnotched X | ISO 179-1/eU | - | 10.4 kJ/m ² |
| Charpy Impact Strength, 23°C Unnotched Z | ISO 179-1/eU | - | 6.5 kJ/m ² |
| Melt Point | ASTM D3418 | 568 °F | 298 °C |
| Melt Flow Rate | ASTM D1238 | 0.28 oz/10 min | 8 grams/10 min |
| Izod Impact Unnotched XY | ASTM D256 | 3 ft-lbf/in | 160 J/m |
| Izod Impact Unnotched Z | ASTM D256 | 1.92 ft-lbf/in | 102 J/m |
| Izod Impact Notched XY | ASTM D256 | 1.01 ft-lbf/in | 54 J/m |
| Izod Impact Notched Z | ASTM D256 | 0.25 ft-lbf/in | 13 J/m |

The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and process parameters. Material specifications are subject to change without notice.