

ULTEM 1010

ULTEM 1010 is a high-performance thermoplastic, PolyEtherImide (PEI), which offers excellent strength, thermal stability and the ability to withstand steam autoclaving. ULTEM 1010 offers the high heat resistance, chemical resistance and tensile strength and is ideal for aerospace, automotive applications and other areas.

| PHYSICAL PROPERTIES | TEST METHOD | UNITS | TYPICAL VALUE |
|------------------------------|----------------------------------|-------------------|-------------------------|
| Density | ASTM D 792 | g/cm ³ | 1.27 |
| Glass transition temperature | DSC, 10°C /min | °C | 215 |
| Heat Deflection Temperature | ASTM D 648, 0.45MPa,6.4mm | °C | 207 |
| Flame Classification | UL 94 | — | V0(1.5mm), V0, 5VA(3mm) |
| Water Absorption | ASTM D 570, 24hours | % | 0.25 |
| | ASTM D 570, Equilibrium, 23°C | % | 1.25 |
| Hardness | Rockwell M | — | 109 |

| MECHANICAL PROPERTIES | TEST METHOD | UNITS | TYPICAL VALUE |
|-----------------------|--------------------|-------|---------------|
| Tensile strength | ASTM D638 | MPa | 90 |
| Young's modulus | ASTM D638 | MPa | 3427 |
| Elongation at break | ASTM D638 | % | 3.3 |
| Bending strength | ASTM D790 | MPa | 126 |
| Bending modulus | ASTM D790 | MPa | 3197 |
| Impact strength | ASTM D256, notched | J/m | 32 |

Disclaimer

The typical values presented in this document are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End-use performance of printed parts properties can be impact by, but not limited to, part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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