

ForTii[®] K11

PPA–GF30

30% Glass Reinforced, PA4T, Good Flow, Electro–friendly

Print Date: 2024–09–17

ForTii[®] K11 combines excellent mechanical properties with low warpage for miniature applications such as Audio Jack and Camera Holder.

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|-------------------------------|-------------------|------|--------------|
| RHEOLOGICAL PROPERTIES | | | |
| | DRY / COND | | |
| Molding shrinkage (parallel) | 0.4 / * | % | ISO 294–4 |
| Molding shrinkage (normal) | 1.3 / * | % | ISO 294–4 |
| MECHANICAL PROPERTIES | | | |
| | DRY / COND | | |
| Tensile modulus | 11300 / 11500 | MPa | ISO 527–1/–2 |
| Tensile modulus (120°C) | 8000 / – | MPa | ISO 527–1/–2 |
| Tensile modulus (160°C) | 4500 | MPa | ISO 527–1/–2 |
| Tensile modulus (200°C) | 4000 | MPa | ISO 527–1/–2 |
| Stress at break | 190 / 170 | MPa | ISO 527–1/–2 |
| Stress at break (120°C) | 125 / – | MPa | ISO 527–1/–2 |
| Stress at break (160°C) | 85 | MPa | ISO 527–1/–2 |
| Stress at break (200°C) | 70 | MPa | ISO 527–1/–2 |
| Strain at break | 2 / 1.9 | % | ISO 527–1/–2 |
| Strain at break (120°C) | 3.5 / – | % | ISO 527–1/–2 |
| Strain at break (160°C) | 5 | % | ISO 527–1/–2 |
| Strain at break (200°C) | 5.5 | % | ISO 527–1/–2 |
| Flexural modulus | 10500 / 11000 | MPa | ISO 178 |
| Flexural strength | 290 / 260 | MPa | ISO 178 |
| Flexural modulus (120°C) | 7500 | MPa | ISO 178 |
| Flexural modulus (160°C) | 4500 | MPa | ISO 178 |

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Property Data

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| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|---|---------------------|-------------------|------------------------|
| Flexural modulus (200°C) | 4000 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 60 / 50 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 10 / 9 | kJ/m ² | ISO 179/1eA |
| <i>THERMAL PROPERTIES</i> <i>DRY / COND</i> | | | |
| Melting temperature (10°C/min) | 325 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 305 / * | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion (parallel) | 0.3 | E-4/°C | ASTM D696 |
| Coeff. of linear therm. expansion (normal) | 0.5 | E-4/°C | ASTM D696 |
| Burning Behav. at 3.0 mm nom. thickn. | HB / * | class | IEC 60695-11-10 |
| Thickness tested | 3 / * | mm | IEC 60695-11-10 |
| UL recognition | Yes / * | - | - |
| Thermal Index 5000 hrs | 174 | °C | IEC 60216/ISO 527-1/-2 |
| <i>ELECTRICAL PROPERTIES</i> <i>DRY / COND</i> | | | |
| Volume resistivity | >1E13 / >1E13 | Ohm*m | IEC 62631-3-1 |
| Electric strength | 33 / 33 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 / 600 | V | IEC 60112 |
| Relative permittivity (100Hz) | 5 / 5 | - | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 4.5 / 4.5 | - | IEC 62631-2-1 |
| Relative permittivity (1GHz) | 3.9 / 4 | - | IEC 61189-2-721 |
| Relative permittivity (10GHz) | 3.8 / 3.9 | - | IEC 61189-2-721 |
| <i>OTHER PROPERTIES</i> <i>DRY / COND</i> | | | |
| Humidity absorption | 2 / * | % | Sim. to ISO 62 |
| Density | 1430 / - | kg/m ³ | ISO 1183 |

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