

ForTii[®] WX11-FC

PPA-GF30

30% Glass Reinforced, PA4T, Food Contact Quality, Drinking Water Grade

Print Date: 2024-03-27

ForTii[®] WX11-FC has excellent hydrolysis resistance, processability and surface quality and is ideal for complex and thin walled food and water contact applications. For detailed statements and information regarding food contact and water contact approvals please contact your Envalior representative.

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|-------------------------------|-------------------|------|--------------|
| RHEOLOGICAL PROPERTIES | | | |
| | DRY / COND | | |
| Molding shrinkage (parallel) | 0.4 / * | % | ISO 294-4 |
| Molding shrinkage (normal) | 1.2 / * | % | ISO 294-4 |
| MECHANICAL PROPERTIES | | | |
| | DRY / COND | | |
| Tensile modulus | 11300 / 11500 | MPa | ISO 527-1/-2 |
| Tensile modulus (-40°C) | 11500 / - | MPa | ISO 527-1/-2 |
| Tensile modulus (40°C) | 10800 / - | MPa | ISO 527-1/-2 |
| Tensile modulus (80°C) | 10500 / 6200 | MPa | ISO 527-1/-2 |
| Tensile modulus (100°C) | 10000 / - | MPa | ISO 527-1/-2 |
| Tensile modulus (120°C) | 8000 / 4600 | MPa | ISO 527-1/-2 |
| Tensile modulus (150°C) | 5000 | MPa | ISO 527-1/-2 |
| Tensile modulus (160°C) | 4500 | MPa | ISO 527-1/-2 |
| Tensile modulus (180°C) | 4300 | MPa | ISO 527-1/-2 |
| Tensile modulus (200°C) | 4000 | MPa | ISO 527-1/-2 |
| Stress at break | 200 / 180 | MPa | ISO 527-1/-2 |
| Stress at break (-40°C) | 230 / - | MPa | ISO 527-1/-2 |
| Stress at break (40°C) | 200 / - | MPa | ISO 527-1/-2 |
| Stress at break (80°C) | 180 / 95 | MPa | ISO 527-1/-2 |
| Stress at break (100°C) | 160 / - | MPa | ISO 527-1/-2 |
| Stress at break (120°C) | 130 / 70 | MPa | ISO 527-1/-2 |

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Property Data

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| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|--|--------------------------|-------------------|--------------------|
| Stress at break (150°C) | 95 | MPa | ISO 527-1/-2 |
| Stress at break (160°C) | 90 | MPa | ISO 527-1/-2 |
| Stress at break (180°C) | 80 | MPa | ISO 527-1/-2 |
| Stress at break (200°C) | 70 | MPa | ISO 527-1/-2 |
| Strain at break | 2.2 / 2 | % | ISO 527-1/-2 |
| Strain at break (-40°C) | 2.3 / - | % | ISO 527-1/-2 |
| Strain at break (40°C) | 2.3 / - | % | ISO 527-1/-2 |
| Strain at break (80°C) | 2.6 / 6 | % | ISO 527-1/-2 |
| Strain at break (100°C) | 3.2 / - | % | ISO 527-1/-2 |
| Strain at break (120°C) | 4.3 / 5 | % | ISO 527-1/-2 |
| Strain at break (150°C) | 6 | % | ISO 527-1/-2 |
| Strain at break (160°C) | 6 | % | ISO 527-1/-2 |
| Strain at break (180°C) | 6 | % | ISO 527-1/-2 |
| Strain at break (200°C) | 6 | % | ISO 527-1/-2 |
| Flexural modulus | 10500 / 11000 | MPa | ISO 178 |
| Flexural strength | 300 / 260 | MPa | ISO 178 |
| Flexural modulus (120°C) | 7600 | MPa | ISO 178 |
| Flexural modulus (160°C) | 4500 | MPa | ISO 178 |
| Flexural modulus (180°C) | 4200 | MPa | ISO 178 |
| Flexural modulus (200°C) | 4000 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 60 / 50 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 55 / 45 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 10 / 9 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (-30°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) | 0.33 | E-4/°C | ASTM D696 |

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|--|--------------------------|-------------------|--------------------|
| Coeff. of linear therm. expansion (normal) | 0.4 | 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 / * | – | – |
| <i>ELECTRICAL PROPERTIES</i> | <i>DRY / COND</i> | | |
| Volume resistivity | >1E13 / >1E13 | Ohm*m | IEC 62631–3–1 |
| Electric strength | 35 / 35 | kV/mm | IEC 60243–1 |
| Comparative tracking index | 600 / – | V | IEC 60112 |
| <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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