Property Data



Print Date: 2024-12-10

Pocan[®] BF4222

PBT-GF20 FR(17)

20% Glass Reinforced, Injection Molding, Flame Retardant

| DDODEDTIED | | | TEAT METUOD |
|---|--------------|-----------|----------------|
| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
| RHEOLOGICAL PROPERTIES | VALUE | | |
| Melt volume-flow rate | 12 | cm³/10min | ISO 1133 |
| Temperature | 260 | °C | ISO 1133 |
| Load | 2.16 | kg | ISO 1133 |
| Molding shrinkage (normal) | 1.1 | % | ISO 294-4 |
| Molding shrinkage (parallel) | 0.5 | % | ISO 294–4 |
| MECHANICAL PROPERTIES | VALUE | | |
| Tensile modulus | 7500 | MPa | ISO 527-1/-2 |
| Stress at break | 115 | MPa | ISO 527-1/-2 |
| Strain at break | 2.6 | % | ISO 527-1/-2 |
| Flexural modulus | 7900 | MPa | ISO 178 |
| Flexural strength | 190 | MPa | ISO 178 |
| Flexural strain at flexural strength | 3.3 | % | ISO 178-A |
| Charpy impact strength (+23°C) | 50 | kJ/m² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 45 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 5 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength $(-30^{\circ}C)$ | 5 | kJ/m² | ISO 179/1eA |
| Izod impact strength (+23°C) | 45 | kJ/m² | ISO 180/1U |
| Izod impact strength (-30°C) | 40 | kJ/m² | ISO 180–1U |
| | | | |
| THERMAL PROPERTIES | VALUE | | |
| Melting temperature (10°C/min) | 222 | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 195 | °C | ISO 75-1/-2 |

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| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|--------------|--------|-----------------|
| Temp. of deflection under load (0.45 MPa) | 215 | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion (parallel) | 0.3 | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 1 | E-4/°C | ISO 11359-1/-2 |
| Burning Behav. at 0.75 mm nom. thickn. | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 0.75 | mm | IEC 60695-11-10 |
| Burning Behav. at 1.5 mm nom. thickn. | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | IEC 60695-11-10 |
| Burning Behav. at 3.0 mm nom. thickn. | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 3 | mm | IEC 60695-11-10 |
| Oxygen index | 28.9 | % | ISO 4589-1/-2 |
| Glow Wire Flammability Index GWFI | 960 | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 0.75 | mm | IEC 60695-2-12 |
| Glow Wire Flammability Index GWFI | 960 | °C | IEC 60695-2-12 |
| GWFI (Thickness (2) tested) | 1.5 | mm | IEC 60695-2-12 |
| Glow Wire Ignition Temperature GWIT | 800 | °C | IEC 60695-2-13 |
| GWIT (Thickness (1) tested) | 0.75 | mm | IEC 60695-2-13 |
| Glow Wire Ignition Temperature GWIT | 800 | °C | IEC 60695-2-13 |
| GWIT (Thickness (2) tested) | 1.5 | mm | IEC 60695-2-13 |
| Glow Wire Ignition Temperature GWIT | 800 | °C | IEC 60695-2-13 |
| GWIT (Thickness (3) tested) | 3 | mm | IEC 60695-2-13 |
| ELECTRICAL PROPERTIES | VALUE | | |
| Volume resistivity | >1E13 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | >1E15 | Ohm | IEC 62631-3-2 |
| Electric strength | 31 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 225 | V | IEC 60112 |
| Comparative tracking index (PLC) | 2 | class | UL 746A |

OTHER PROPERTIES

VALUE

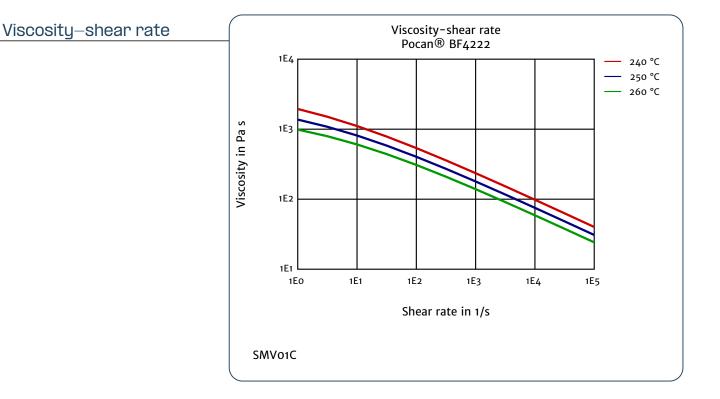
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|--|--------------|-------|-------------------------|
| Water absorption | 0.4 | % | Sim. to ISO 62 |
| Humidity absorption | 0.2 | % | Sim. to ISO 62 |
| Density | 1570 | kg/m³ | ISO 1183 |
| | | | |
| PROCESSING RECOMMENDATIONS | VALUE | | |
| Drying temperature circulating air dryer | 120 | °C | |
| Drying time circulating air dryer | 4–8 | h | |
| Residual moisture content | 0.00-0.02 | % | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax) | 240–260 | °C | |
| Mold temperature | 80–100 | °C | |



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