

Pocan[®] B1600

PBT

Injection Molding, Unreinforced, Extrusion, Food Contact Quality

Print Date: 2024-09-27

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|--------------|------------------------|----------------|
| RHEOLOGICAL PROPERTIES | | | |
| | VALUE | | |
| Melt volume-flow rate | 14 | cm ³ /10min | ISO 1133 |
| Temperature | 250 | °C | ISO 1133 |
| Load | 2.16 | kg | ISO 1133 |
| MECHANICAL PROPERTIES | | | |
| | VALUE | | |
| Tensile modulus | 2600 | MPa | ISO 527-1/-2 |
| Yield stress | 55 | MPa | ISO 527-1/-2 |
| Yield strain | 4 | % | ISO 527-1/-2 |
| Nominal strain at break | >50 | % | ISO 527-1/-2 |
| Flexural modulus | 2650 | MPa | ISO 178 |
| Flexural strength | 85 | MPa | ISO 178 |
| Flexural strain at flexural strength | 6 | % | ISO 178-A |
| Charpy impact strength (+23°C) | N | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 200 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | <10 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | <10 | kJ/m ² | ISO 179/1eA |
| Izod impact strength (+23°C) | N | kJ/m ² | ISO 180/1U |
| Izod impact strength (-30°C) | 160 | kJ/m ² | ISO 180-1U |
| THERMAL PROPERTIES | | | |
| | VALUE | | |
| Melting temperature (10°C/min) | 225 | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 60 | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 160 | °C | ISO 75-1/-2 |

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|--|---------------------|-------------|--------------------|
| Coeff. of linear therm. expansion (parallel) | 1.2 | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 1.3 | E-4/°C | ISO 11359-1/-2 |
| Burning Behav. at 0.75 mm nom. thickn. | HB | class | IEC 60695-11-10 |
| Thickness tested | 0.75 | mm | IEC 60695-11-10 |
| Burning Behav. at 1.5 mm nom. thickn. | HB | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | IEC 60695-11-10 |
| Oxygen index | 24 | % | ISO 4589-1/-2 |
| Glow Wire Flammability Index GWFI | 750 | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 2 | mm | IEC 60695-2-12 |

ELECTRICAL PROPERTIES

VALUE

| | | | |
|-------------------------------|-------|-------|---------------|
| Relative permittivity (100Hz) | 3.4 | – | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 3.2 | – | IEC 62631-2-1 |
| Dissipation factor (100 Hz) | 15 | E-4 | IEC 62631-2-1 |
| Dissipation factor (1 MHz) | 200 | E-4 | IEC 62631-2-1 |
| Volume resistivity | >1E13 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | >1E15 | Ohm | IEC 62631-3-2 |
| Electric strength | 30 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 | V | IEC 60112 |

OTHER PROPERTIES

VALUE

| | | | |
|---------------------|------|-------------------|----------------|
| Water absorption | 0.5 | % | Sim. to ISO 62 |
| Humidity absorption | 0.2 | % | Sim. to ISO 62 |
| Density | 1300 | kg/m ³ | 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 |

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| Melt temperature (Tmin – Tmax) | 250–270 | °C | |
| Mold temperature | 80–100 | °C | |

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