Property Data

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# Durethan® BKV20FN20

## PA6–GF20 FR(30)

*20% Glass Fiber Reinforced, Injection Molding, Flame Retardant (halogen free), Heat Stabilized*

Print Date: 2025–08–21

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|---|---|---|
| **RHEOLOGICAL PROPERTIES** | DRY / COND | | |
| Molding shrinkage (parallel) | 0.6 / * | % | ISO 294–4 |
| Molding shrinkage (normal) | 0.7 / * | % | ISO 294–4 |
| **MECHANICAL PROPERTIES** | DRY / COND | | |
| Tensile modulus | 6100 / 3100 | MPa | ISO 527–1/–2 |
| Stress at break | 100 / 55 | MPa | ISO 527–1/–2 |
| Strain at break | 3 / 15 | % | ISO 527–1/–2 |
| Flexural modulus | 6100 / 3200 | MPa | ISO 178 |
| Flexural strength | 170 / 90 | MPa | ISO 178 |
| Tensile modulus (200°C) | 1420 | MPa | ISO 527–1/–2 |
| Charpy impact strength (+23°C) | 35 / 100 | kJ/m² | ISO 179/1eU |
| Charpy impact strength (–30°C) | 30 / – | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | <10 / <10 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (–30°C) | <10 / <10 | kJ/m² | ISO 179/1eA |
| Izod notched impact strength (+23°C) | <10 / 11 | kJ/m² | ISO 180/1A |
| **THERMAL PROPERTIES** | DRY / COND | | |
| Melting temperature (10°C/min) | 222 / * | °C | ISO 11357–1/–3 |
| Temp. of deflection under load (1.80 MPa) | 185 / * | °C | ISO 75–1/–2 |
| Temp. of deflection under load (0.45 MPa) | 215 / * | °C | ISO 75–1/–2 |
| Coeff. of linear therm. expansion (parallel) | 0.4 / * | E–4/°C | ISO 11359–1/–2 |
| Coeff. of linear therm. expansion (normal) | 0.9 / * | E–4/°C | ISO 11359–1/–2 |
| Burning Behav. at 1.5 mm nom. thickn. | V–2 / * | class | IEC 60695–11–10 |

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|---|---|---|---|
| Thickness tested | 1.5 / * | mm | IEC 60695–11–10 |
| Burning Behav. at 3.0 mm nom. thickn. | V–2 / * | class | IEC 60695–11–10 |
| Thickness tested | 3 / * | mm | IEC 60695–11–10 |
| Burning Behav. at 0.75 mm nom. thickn. | V–2 / * | class | IEC 60695–11–10 |
| Thickness tested | 0.75 / * | mm | IEC 60695–11–10 |
| Oxygen index | 26.9 / * | % | 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 | 775 / – | °C | IEC 60695–2–13 |
| GWIT (Thickness (1) tested) | 0.75 / – | mm | IEC 60695–2–13 |
| Glow Wire Ignition Temperature GWIT | 775 / – | °C | IEC 60695–2–13 |
| GWIT (Thickness (2) tested) | 1.5 / – | mm | IEC 60695–2–13 |

| ELECTRICAL PROPERTIES | DRY / COND | | |
|---|---|---|---|
| Volume resistivity | >1E13 / – | Ohm*m | IEC 62631–3–1 |
| Electric strength | 32 / – | kV/mm | IEC 60243–1 |

| OTHER PROPERTIES | DRY / COND | | |
|---|---|---|---|
| Water absorption | 7 / * | % | Sim. to ISO 62 |
| Humidity absorption | 2.1 / * | % | Sim. to ISO 62 |
| Density | 1310 / – | kg/m³ | ISO 1183 |

| PROCESSING RECOMMENDATIONS | VALUE | | |
|---|---|---|---|
| Drying temperature dry air dryer | 80 | °C | |
| Drying time dry air dryer | 2–6 | h | |
| Residual moisture content | 0.03–0.07 | % | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax) | 250–270 | °C | |

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| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|---|---|---|
| Mold temperature | 80–100 | °C | |