

# Durethan® BKV50H3.0 DUS037

## PA6—GF50

50% Glass Fiber Reinforced, Injection Molding, Heat Stabilized

Print Date: 2025-09-06

| PROPERTIES                                   | TYPICAL DATA | UNIT              | TEST METHOD    |
|--|--------------|-------------------|----------------|
| <b>MECHANICAL PROPERTIES</b>                 |              | <b>DRY / COND</b> |                |
| Tensile modulus                              | 16300 / 9800 | MPa               | ISO 527-1/-2   |
| Stress at break                              | 230 / 150    | MPa               | ISO 527-1/-2   |
| Strain at break                              | 3.2 / 5      | %                 | ISO 527-1/-2   |
| Flexural modulus                             | 15500 / 9700 | MPa               | ISO 178        |
| Flexural strength                            | 360 / 230    | MPa               | ISO 178        |
| Tensile modulus (200°C)                      | 4750         | MPa               | ISO 527-1/-2   |
| Charpy impact strength (+23°C)               | 100 / 105    | kJ/m²             | ISO 179/1eU    |
| Charpy impact strength (-30°C)               | 90 / 85      | kJ/m²             | ISO 179/1eU    |
| Charpy notched impact strength (+23°C)       | 20 / 25      | kJ/m²             | ISO 179/1eA    |
| Charpy notched impact strength (-30°C)       | 15 / 13      | kJ/m²             | ISO 179/1eA    |
| Izod notched impact strength (+23°C)         | 20 / 25      | kJ/m²             | ISO 180/1A     |
| <b>THERMAL PROPERTIES</b>                    |              | <b>DRY / COND</b> |                |
| Melting temperature (10°C/min)               | 220 / *      | °C                | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa)    | 210 / *      | °C                | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa)    | 220 / *      | °C                | ISO 75-1/-2    |
| Coeff. of linear therm. expansion (parallel) | 0.1 / *      | E-4/°C            | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal)   | 0.5 / *      | E-4/°C            | ISO 11359-1/-2 |
| <b>OTHER PROPERTIES</b>                      |              | <b>DRY / COND</b> |                |
| Water absorption                             | 4.7 / *      | %                 | Sim. to ISO 62 |
| Humidity absorption                          | 1.5 / *      | %                 | Sim. to ISO 62 |
| Density                                      | 1560 / -     | kg/m³             | ISO 1183       |

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|----------------------------------|--------------|-------|----------------------|
| MATERIAL SPECIFIC PROPERTIES     | DRY / COND   |       |                      |
| Viscosity number                 | 140 / *      | cm³/g | ISO 307, 1157, 1628  |
| PROCESSING RECOMMENDATIONS       | VALUE        |       |                      |
| Drying temperature dry air dryer | 80           | °C    |                      |
| Drying time dry air dryer        | 2-6          | h     |                      |
| Residual moisture content        | 0.03-0.12    | %     | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax)   | 270-290      | °C    |                      |
| Mold temperature                 | 80-120       | °C    |                      |

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