

Durethan[®] BC304H3.0

PA6—I

Injection Molding, Unreinforced, Heat Stabilized, Impact Modified

Print Date: 2025-08-21

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|--------------|-------------------|-----------------|
| MECHANICAL PROPERTIES | | DRY / COND | |
| Tensile modulus | 1800 / 800 | MPa | ISO 527-1/-2 |
| Nominal strain at break | >50 / >50 | % | ISO 527-1/-2 |
| Yield stress | 45 / 35 | MPa | ISO 527-1/-2 |
| Yield strain | 4.5 / 30 | % | ISO 527-1/-2 |
| Flexural modulus | 1600 / 700 | MPa | ISO 178 |
| Flexural strength | 60 / 30 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | N / N | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (-30°C) | N / N | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 85 / 120 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | 20 / 20 | kJ/m ² | ISO 179/1eA |
| Izod notched impact strength (+23°C) | 70 / 100 | kJ/m ² | 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) | 50 / * | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 90 / * | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion (parallel) | 1.5 / * | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 1.6 / * | E-4/°C | ISO 11359-1/-2 |
| 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 | 21 / * | % | ISO 4589-1/-2 |
| Glow Wire Flammability Index GWFI | 650 / - | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 2 / - | mm | IEC 60695-2-12 |

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|-----------------------------------|-------------------|-------|----------------------|
| ELECTRICAL PROPERTIES | | | |
| | DRY / COND | | |
| Relative permittivity (100Hz) | 3.3 / 11 | — | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 3 / 3.5 | — | IEC 62631-2-1 |
| Dissipation factor (100 Hz) | 70 / 1750 | E-4 | IEC 62631-2-1 |
| Dissipation factor (1 MHz) | 150 / 900 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E13 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | * / 1E14 | Ohm | IEC 62631-3-2 |
| Electric strength | 35 / 35 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 / — | V | IEC 60112 |
| OTHER PROPERTIES | | | |
| | DRY / COND | | |
| Water absorption | 7.5 / * | % | Sim. to ISO 62 |
| Humidity absorption | 2.2 / * | % | Sim. to ISO 62 |
| Density | 1060 / — | 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 | 0.03-0.12 | % | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax) | 260-280 | °C | |
| Mold temperature | 80-90 | °C | |

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