

Durethan® DPBM65XFM30

PA6—(GF+MX)65 FR(61)

65% Glass/Mineral Reinforced, Injection Molding, Flame Retardant (halogen free), Heat Stabilized, Improved flow

Print Date: 2024-08-24

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|-------------------|-------------------|-----------------|
| RHEOLOGICAL PROPERTIES | | | |
| | DRY / COND | | |
| Molding shrinkage (parallel) | 0.4 / * | % | ISO 294-4 |
| Molding shrinkage (normal) | 0.5 / * | % | ISO 294-4 |
| MECHANICAL PROPERTIES | | | |
| | DRY / COND | | |
| Tensile modulus | 12100 / 6000 | MPa | ISO 527-1/-2 |
| Stress at break | 120 / 73 | MPa | ISO 527-1/-2 |
| Strain at break | 1.6 / 2.2 | % | ISO 527-1/-2 |
| Flexural modulus | 12300 / 6000 | MPa | ISO 178 |
| Flexural strength | 175 / 110 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 30 / 23 | kJ/m ² | ISO 179/1eU |
| Izod notched impact strength (+23°C) | <10 / <10 | kJ/m ² | ISO 180/1A |
| THERMAL PROPERTIES | | | |
| | DRY / COND | | |
| Melting temperature (10°C/min) | 220 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 181 / * | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 200 / * | °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) | 0.5 / * | E-4/°C | ISO 11359-1/-2 |
| Thermal conductivity in plane | 1.1 | W/(m K) | ASTM E1461 |
| Thermal conductivity through plane | 0.9 | W/(m K) | ASTM E1461 |
| Burning Behav. at 1.5 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 5VA / * | mm | IEC 60695-11-10 |
| Burning Behav. at 0.75 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |

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Property Data

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|-------------------------------------|--------------|------|-----------------|
| Thickness tested | 0.75 / * | mm | IEC 60695-11-10 |
| Oxygen index | 49.1 / * | % | 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 Ignition Temperature GWIT | 775 / - | °C | IEC 60695-2-13 |
| GWIT (Thickness (1) tested) | 0.75 / - | mm | IEC 60695-2-13 |

ELECTRICAL PROPERTIES

DRY / COND

| | | | |
|----------------------------|----------|-------|-------------|
| Electric strength | 26.3 / - | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 / - | V | IEC 60112 |

OTHER PROPERTIES

DRY / COND

| | | | |
|---------------------|----------|-------------------|----------------|
| Water absorption | 3.5 / * | % | Sim. to ISO 62 |
| Humidity absorption | 1.2 / * | % | Sim. to ISO 62 |
| Density | 1690 / - | kg/m ³ | 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) | 250-280 | °C | |
| Mold temperature | 80-100 | °C | |

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