

Durethan[®] BKV140H2.0 DUS008

PA6-I-GF40

40% Glass Reinforced, Injection Molding, Heat Stabilized, Improved Impact

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|-------------------|-------------------|-----------------|
| RHEOLOGICAL PROPERTIES | | | |
| | DRY / COND | | |
| Molding shrinkage (parallel) | 0.25 / * | % | ISO 294-4 |
| Molding shrinkage (normal) | 0.7 / * | % | ISO 294-4 |
| MECHANICAL PROPERTIES | | | |
| | DRY / COND | | |
| Tensile modulus | 12500 / 7800 | MPa | ISO 527-1/-2 |
| Stress at break | 180 / 120 | MPa | ISO 527-1/-2 |
| Strain at break | 3.5 / 8.5 | % | ISO 527-1/-2 |
| Flexural modulus | 11200 / - | MPa | ISO 178 |
| Flexural strength | 290 / 180 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 95 / 110 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 95 / 90 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 20 / 30 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | 10 / 10 | kJ/m ² | ISO 179/1eA |
| Izod notched impact strength (+23°C) | 15 / 30 | 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) | 205 / * | °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) | 0.9 / * | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 0.2 / * | 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 |

Property Data

Durethan® BKV140H2.0 DUS008

| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|--|---------------------|-------------|--------------------|
| Burning Behav. at 3.0 mm nom. thickn. | HB / * | class | IEC 60695-11-10 |
| Thickness tested | 3 / * | mm | IEC 60695-11-10 |
| Burning Behav. at 0.75 mm nom. thickn. | HB / * | class | IEC 60695-11-10 |
| Thickness tested | 0.75 / * | mm | IEC 60695-11-10 |
| Glow Wire Flammability Index GWFI | 750 / – | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 2 / – | mm | IEC 60695-2-12 |

ELECTRICAL PROPERTIES

DRY / COND

| | | | |
|-------------------------------|------------|-------|---------------|
| Relative permittivity (100Hz) | 4 / 9 | – | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 4 / 4 | – | IEC 62631-2-1 |
| Volume resistivity | 1E13 / 1E9 | Ohm*m | IEC 62631-3-1 |
| Electric strength | 35 / 43 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 425 / – | V | IEC 60112 |

OTHER PROPERTIES

DRY / COND

| | | | |
|---------|----------|-------------------|----------|
| Density | 1460 / – | 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 | 0.03–0.12 | % | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax) | 260–290 | °C | |
| Mold temperature | 80–100 | °C | |