

Datasheet

Durethan BKV15W1 000000 DUS037

PA 6-Copolymer, 15% glass fibers, injection molding, weather stabilized, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6/66,GF15,GLR,S14-060

| Property | Test Condition | Unit | Standard | guide value ¹ | |
|---|--|---------------------|----------------|--------------------------|-------|
| | | | | d.a.m. | cond. |
| Rheological properties | | | | | |
| Molding shrinkage, parallel | 150x105x3; 280 °C / MT 80 °C; 500 bar | % | acc. ISO 294-4 | 0.29 | |
| Molding shrinkage, transverse | 150x105x3; 280 °C / MT 80 °C; 500 bar | % | acc. ISO 294-4 | 0.88 | |
| Post- shrinkage, parallel | 150x105x3; 120 °C; 4 h | % | acc. ISO 294-4 | 0.08 | |
| Post- shrinkage, transverse | 150x105x3; 120 °C; 4 h | % | acc. ISO 294-4 | 0.21 | |
| Mechanical properties (23 °C/50 % r. h.) | | | | | |
| C Tensile modulus | 1 mm/min | MPa | ISO 527-1,-2 | 6000 | 3000 |
| C Tensile Stress at break | 5 mm/min | MPa | ISO 527-1,-2 | 125 | 75 |
| C Tensile Strain at break | 5 mm/min | % | ISO 527-1,-2 | 3 | 12 |
| C Charpy impact strength | 23 °C | kJ/m ² | ISO 179-1eU | 45 | 70 |
| C Charpy notched impact strength | 23 °C | kJ/m ² | ISO 179-1eA | <10 | 10 |
| C Charpy notched impact strength | -30 °C | kJ/m ² | ISO 179-1eA | <10 | <10 |
| Izod impact strength | 23 °C | kJ/m ² | ISO 180-1U | 30 | 80 |
| Izod notched impact strength | -30 °C | kJ/m ² | ISO 180-1A | <10 | <10 |
| Flexural modulus | 2 mm/min | MPa | ISO 178-A | 5200 | 3100 |
| Flexural strength | 2 mm/min | MPa | ISO 178-A | 200 | 120 |
| Flexural strain at flexural strength | 2 mm/min | % | ISO 178-A | 5 | 8 |
| Flexural stress at 3.5 % strain | 2 mm/min | MPa | ISO 178-A | 180 | 90 |
| Thermal properties | | | | | |
| C Melting temperature | 10 °C/min | °C | ISO 11357-1,-3 | 213 | |
| C Temperature of deflection under load | 1.80 MPa | °C | ISO 75-1,-2 | 190 | |
| C Temperature of deflection under load | 0.45 MPa | °C | ISO 75-1,-2 | 210 | |
| C Coefficient of linear thermal expansion, parallel | 23 to 55 °C | 10 ⁻⁴ /K | ISO 11359-1,-2 | 0.3 | |
| C Coefficient of linear thermal expansion, transverse | 23 to 55 °C | 10 ⁻⁴ /K | ISO 11359-1,-2 | 0.8 | |
| Other properties (23 °C) | | | | | |
| C Density | | kg/m ³ | ISO 1183 | 1230 | |
| Bulk density | | kg/m ³ | ISO 60 | 700 | |
| Processing conditions for test specimens | | | | | |
| C Injection molding-Melt temperature | | °C | ISO 294 | 280 | |
| C Injection molding-Mold temperature | | °C | ISO 294 | 80 | |
| Processing recommendations | | | | | |
| Drying temperature dry air dryer | | °C | - | 80 | |
| Drying time dry air dryer | | h | - | 2-6 | |

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|--------------------------------|----------------|------|-------------------------|---|
| Residual moisture content | | % | Acc. to Karl Fischer | 0.03-0.12 |
| Melt temperature (Tmin - Tmax) | | °C | - | 260-290 |
| Mold temperature | | °C | - | 80-100 |

Notes

1 Typical properties: these are not to be construed as specifications

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

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Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

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