Property Data

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# Durethan® AKV30XTS3

## PA66–GF30

*30% Glass Reinforced, Injection Molding, Heat Stabilized*

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|---|---|---|
| **RHEOLOGICAL PROPERTIES** | DRY / COND | | |
| Molding shrinkage (parallel) | 0.35 / * | % | ISO 294–4 |
| Molding shrinkage (normal) | 1 / * | % | ISO 294–4 |
| **MECHANICAL PROPERTIES** | DRY / COND | | |
| Tensile modulus | 10000 / 6000 | MPa | ISO 527–1/–2 |
| Stress at break | 175 / 110 | MPa | ISO 527–1/–2 |
| Strain at break | 3 / 5 | % | ISO 527–1/–2 |
| Flexural modulus | 9000 / 6000 | MPa | ISO 178 |
| Flexural strength | 275 / 175 | MPa | ISO 178 |
| Tensile modulus (200°C) | 3380 | MPa | ISO 527–1/–2 |
| Charpy impact strength (+23°C) | 65 / 80 | kJ/m² | ISO 179/1eU |
| Charpy impact strength (–30°C) | 55 / 50 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 10 / 15 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (–30°C) | <10 / <10 | kJ/m² | ISO 179/1eA |
| Izod notched impact strength (+23°C) | 10 / 15 | kJ/m² | ISO 180/1A |
| **THERMAL PROPERTIES** | DRY / COND | | |
| Melting temperature (10°C/min) | 262 / * | °C | ISO 11357–1/–3 |
| Temp. of deflection under load (1.80 MPa) | 235 / * | °C | ISO 75–1/–2 |
| Coeff. of linear therm. expansion (parallel) | 0.25 / * | E–4/°C | ISO 11359–1/–2 |
| Coeff. of linear therm. expansion (normal) | 0.95 / * | 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 |

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| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|---|---|---|
| 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 |
| **ELECTRICAL PROPERTIES** | **DRY / COND** | | |
| Volume resistivity | >1E13 / – | Ohm*m | IEC 62631-3-1 |
| Electric strength | 34 / – | kV/mm | IEC 60243-1 |
| Comparative tracking index | 525 / – | V | IEC 60112 |
| **OTHER PROPERTIES** | **DRY / COND** | | |
| Water absorption | 5.5 / * | % | Sim. to ISO 62 |
| Humidity absorption | 2 / * | % | Sim. to ISO 62 |
| Density | 1360 / – | 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) | 270-290 | °C | |
| Mold temperature | 80-120 | °C | |
| admissible residence time at Tmax | <5 | min | |