

Durethan® AKV25F30

PA66–GF25 FR(17)

25% Glass Reinforced, Injection Molding, Heat Stabilized, Flame Retardant

| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|--|--------------------------|-------------------|--------------------|
| <i>RHEOLOGICAL PROPERTIES</i> | | | |
| | <i>DRY / COND</i> | | |
| Molding shrinkage (parallel) | 0.4 / * | % | ISO 294-4 |
| Molding shrinkage (normal) | 0.7 / * | % | ISO 294-4 |
| <i>MECHANICAL PROPERTIES</i> | | | |
| | <i>DRY / COND</i> | | |
| Tensile modulus | 10500 / 8000 | MPa | ISO 527-1/-2 |
| Stress at break | 150 / 100 | MPa | ISO 527-1/-2 |
| Strain at break | 2.2 / 2.8 | % | ISO 527-1/-2 |
| Flexural modulus | 10000 / 7300 | MPa | ISO 178 |
| Flexural strength | 220 / 160 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 50 / 50 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 40 / 40 | kJ/m ² | ISO 179/1eU |
| Izod notched impact strength (+23°C) | <10 / 10 | kJ/m ² | ISO 180/1A |
| <i>THERMAL PROPERTIES</i> | | | |
| | <i>DRY / COND</i> | | |
| Melting temperature (10°C/min) | 260 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 238 / * | °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) | 0.8 / * | E-4/°C | ISO 11359-1/-2 |
| Burning Behav. at 1.5 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Burning Behav. at 3.0 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 3 / * | mm | IEC 60695-11-10 |
| Burning Behav. at 0.4 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 0.4 / * | mm | IEC 60695-11-10 |

Property Data

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| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|--|--------------------------|-------------------|----------------------|
| Burning Behav. at 0.75 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 0.75 / * | mm | IEC 60695-11-10 |
| Glow Wire Flammability Index GWFI | 960 / – | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 0.4 / – | mm | IEC 60695-2-12 |
| Glow Wire Flammability Index GWFI | 960 / – | °C | IEC 60695-2-12 |
| GWFI (Thickness (2) tested) | 0.75 / – | mm | IEC 60695-2-12 |
| Glow Wire Ignition Temperature GWIT | 875 / – | °C | IEC 60695-2-13 |
| GWIT (Thickness (1) tested) | 0.4 / – | mm | IEC 60695-2-13 |
| Glow Wire Ignition Temperature GWIT | 900 / – | °C | IEC 60695-2-13 |
| GWIT (Thickness (2) tested) | 0.75 / – | mm | IEC 60695-2-13 |
| <i>ELECTRICAL PROPERTIES</i> | <i>DRY / COND</i> | | |
| Comparative tracking index | 400 / – | V | IEC 60112 |
| <i>OTHER PROPERTIES</i> | <i>DRY / COND</i> | | |
| Water absorption | 3.9 / * | % | Sim. to ISO 62 |
| Humidity absorption | 1.2 / * | % | Sim. to ISO 62 |
| Density | 1620 / – | kg/m ³ | ISO 1183 |
| <i>PROCESSING RECOMMENDATIONS</i> | <i>VALUE</i> | | |
| 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 | 80–100 | °C | |