Property Data



Print Date: 2024-03-27

Akulon[®] K225–KS

PA6 FR(30)

Flame Retardant (halogen free), Heat Stabilized

| | | | TEST METHOD |
|--|--------------|--------|-----------------|
| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
| RHEOLOGICAL PROPERTIES | DRY / COND | | |
| Molding shrinkage (parallel) | 1.1 / * | % | ISO 294-4 |
| Molding shrinkage (normal) | 0.91 / * | % | ISO 294-4 |
| | | | |
| MECHANICAL PROPERTIES | DRY / COND | | |
| Tensile modulus | 3800 / 1400 | MPa | ISO 527-1/-2 |
| Nominal strain at break | 6 / >50 | % | ISO 527-1/-2 |
| Yield stress | 80 / 40 | MPa | ISO 527-1/-2 |
| Yield strain | 3.5 / 22 | % | ISO 527-1/-2 |
| Flexural modulus | 3400 / 1300 | MPa | ISO 178 |
| Flexural strength | 115 / 40 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 95 / N | kJ∕m² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 90 / 85 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 5/12 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | 3/3 | kJ/m² | ISO 179/1eA |
| | | | |
| THERMAL PROPERTIES | DRY / COND | | |
| Melting temperature (10°C/min) | 220 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 75 / * | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 180 / * | °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) | 0.9 / * | E-4/°C | ISO 11359-1/-2 |
| Burning Behav. at 1.5 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 1.5 / * | mm | IEC 60695-11-10 |
| | | | |

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IEC 60112

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|--------------|-------|-----------------|
| 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 |
| Burning Behav. at 0.75 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 0.75 / * | mm | IEC 60695-11-10 |
| Oxygen index | 40 / * | % | ISO 4589-1/-2 |
| Glow Wire Flammability Index GWFI | 960 / - | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 0.38 / - | mm | IEC 60695-2-12 |
| Glow Wire Flammability Index GWFI | 960 / - | °C | IEC 60695-2-12 |
| GWFI (Thickness (2) tested) | 1.5 / - | mm | IEC 60695-2-12 |
| Glow Wire Ignition Temperature GWIT | 960 / - | °C | IEC 60695-2-13 |
| GWIT (Thickness (1) tested) | 0.38 / - | mm | IEC 60695-2-13 |
| Glow Wire Ignition Temperature GWIT | 960 / - | °C | IEC 60695-2-13 |
| GWIT (Thickness (2) tested) | 1.5 / - | mm | IEC 60695-2-13 |
| | | | |
| ELECTRICAL PROPERTIES | DRY / COND | | |
| Relative permittivity (100Hz) | 3.3 / 8 | _ | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 3.2 / 3.6 | _ | IEC 62631-2-1 |
| Dissipation factor (100 Hz) | 90 / 1250 | E-4 | IEC 62631-2-1 |
| Dissipation factor (1 MHz) | 200 / 800 | E-4 | IEC 62631-2-1 |
| Volume resistivity | >1E13 / 1E11 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | - / 1E14 | Ohm | IEC 62631-3-2 |
| Electric strength | 30 / 25 | kV/mm | IEC 60243-1 |

| OTHER PROPERTIES | DRY / COND | | |
|---------------------|------------|---|----------------|
| Water absorption | 9 / * | % | Sim. to ISO 62 |
| Humidity absorption | 2.5 / * | % | Sim. to ISO 62 |

600 / 600

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Comparative tracking index

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|------------|--------------|-------|-------------|
| Density | 1180 / - | kg∕m³ | ISO 1183 |

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