

Akulon[®] Ultraflow K–FKGS6/B

PA6-GF30 FR(17)

30% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

Print Date: 2024-12-10

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|--------------|--------|-------------------|
| RHEOLOGICAL PROPERTIES | DRY / COND | | |
| Molding shrinkage [parallel] | 0.21 / * | % | Sim. to ISO 294-4 |
| Molding shrinkage [normal] | 0.77 / * | % | Sim. to ISO 294-4 |
| | | | |
| MECHANICAL PROPERTIES | DRY / COND | | |
| Tensile modulus | 12000 / 8300 | MPa | ISO 527-1/-2 |
| Stress at break | 160 / 105 | MPa | ISO 527-1/-2 |
| Strain at break | 2.3 / 3.6 | % | ISO 527-1/-2 |
| Flexural modulus | 11500 / 8000 | MPa | ISO 178 |
| Flexural strength | 240 / 165 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 55 / 55 | kJ/m² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 60 / 60 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 12 / 14 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | 12 / 12 | 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) | 205 / * | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 215 / * | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion (parallel) | 0.2 / * | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 1.1 / * | 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 |
| Burning Behav. at 3.0 mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |

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| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|---|-----------------------|---|
| Thickness tested | 3/* | 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 | 30 / * | % | ISO 4589-1/-2 |
| Glow Wire Flammability Index GWFI | 960 / - | °C | IEC 60695-2-12 |
| GWFI (Thickness (1) tested) | 0.75 / – | mm | IEC 60695-2-12 |
| Glow Wire Flammability Index GWFI | 960 / - | °C | IEC 60695-2-12 |
| GWFI (Thickness (2) tested) | 3/- | mm | IEC 60695-2-12 |
| Glow Wire Ignition Temperature GWIT | 800 / - | °C | IEC 60695-2-13 |
| GWIT (Thickness (1) tested) | 0.75 / - | mm | IEC 60695-2-13 |
| Glow Wire Ignition Temperature GWIT | 875 / – | °C | IEC 60695-2-13 |
| GWIT (Thickness (2) tested) | 3/- | mm | IEC 60695-2-13 |
| ELECTRICAL PROPERTIES | DRY / COND | | |
| Relative permittivity (100Hz) | 3.5 / 10 | _ | IEC 62631-2-1 |
| | | | |
| Relative permittivity (1 MHz) | 3.4 / 4 | _ | IEC 62631-2-1 |
| Relative permittivity (1 MHz) Dissipation factor (100 Hz) | 3.4 / 4 60 / 3000 | | IEC 62631-2-1 IEC 62631-2-1 |
| | | | |
| Dissipation factor (100 Hz) | 60 / 3000 | | IEC 62631-2-1 |
| Dissipation factor (100 Hz) Dissipation factor (1 MHz) | 60 / 3000 120 / 700 | E-4 | IEC 62631-2-1 IEC 62631-2-1 |
| Dissipation factor (100 Hz) Dissipation factor (1 MHz) Volume resistivity | 60 / 3000 120 / 700 1E13 / 1E11 | E-4 Ohm*m | IEC 62631-2-1 IEC 62631-2-1 IEC 62631-3-1 |
| Dissipation factor (100 Hz) Dissipation factor (1 MHz) Volume resistivity Surface resistivity | 60 / 3000 120 / 700 1E13 / 1E11 - / 1E14 | E-4 Ohm*m Ohm | IEC 62631-2-1 IEC 62631-2-1 IEC 62631-3-1 IEC 62631-3-2 |
| Dissipation factor (100 Hz) Dissipation factor (1 MHz) Volume resistivity Surface resistivity Electric strength Comparative tracking index | 60 / 3000 120 / 700 1E13 / 1E11 - / 1E14 33 / 30 | E-4 Ohm*m Ohm kV/mm | IEC 62631-2-1 IEC 62631-2-1 IEC 62631-3-1 IEC 62631-3-2 IEC 60243-1 |
| Dissipation factor (100 Hz) Dissipation factor (1 MHz) Volume resistivity Surface resistivity Electric strength Comparative tracking index OTHER PROPERTIES | 60 / 3000 120 / 700 1E13 / 1E11 - / 1E14 33 / 30 325 / - DRY / COND | E-4 Ohm*m Ohm kV/mm | IEC 62631-2-1 IEC 62631-2-1 IEC 62631-3-1 IEC 62631-3-2 IEC 60243-1 IEC 60112 |
| Dissipation factor (100 Hz) Dissipation factor (1 MHz) Volume resistivity Surface resistivity Electric strength Comparative tracking index | 60 / 3000 120 / 700 1E13 / 1E11 - / 1E14 33 / 30 325 / - | E-4 Ohm*m Ohm kV/mm V | IEC 62631-2-1 IEC 62631-2-1 IEC 62631-3-1 IEC 62631-3-2 IEC 60243-1 |

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