

Akulon[®] K222–KGV4

PA6–GF20 FR(30)

20% Glass Reinforced, Heat Stabilized, Flame Retardant (halogen–phosphorous–free)

Print Date: 2024–12–10

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|---|-------------------|-------------------|-----------------|
| RHEOLOGICAL PROPERTIES | | | |
| | DRY / COND | | |
| Molding shrinkage (parallel) | 0.6 / * | % | ISO 294–4 |
| Molding shrinkage (normal) | 1 / * | % | ISO 294–4 |
| MECHANICAL PROPERTIES | | | |
| | DRY / COND | | |
| Tensile modulus | 6000 / 2500 | MPa | ISO 527–1/–2 |
| Stress at break | 85 / 45 | MPa | ISO 527–1/–2 |
| Strain at break | 3.6 / 15 | % | ISO 527–1/–2 |
| Flexural modulus | 5700 / 2500 | MPa | ISO 178 |
| Flexural strength | 140 / 65 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 45 / 110 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (–30°C) | 35 / 35 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 3.5 / 7 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (–30°C) | 3 / 3 | kJ/m ² | 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) | 140 / * | °C | ISO 75–1/–2 |
| Temp. of deflection under load (0.45 MPa) | 210 / * | °C | ISO 75–1/–2 |
| Burning Behav. at 1.5 mm nom. thickn. | V–2 / * | class | IEC 60695–11–10 |
| Thickness tested | 1.5 / * | mm | IEC 60695–11–10 |
| Burning Behav. at 3.0 mm nom. thickn. | V–2 / * | class | IEC 60695–11–10 |
| Thickness tested | 3 / * | mm | IEC 60695–11–10 |
| Burning Behav. at 0.75 mm nom. thickn. | V–2 / * | class | IEC 60695–11–10 |

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Property Data

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| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|-----------------------------------|---------------------|-------------|--------------------|
| Thickness tested | 0.75 / * | mm | IEC 60695–11–10 |
| Glow Wire Flammability Index GWFI | 960 / – | °C | IEC 60695–2–12 |
| GWFI (Thickness (1) tested) | 1.6 / – | mm | IEC 60695–2–12 |
| Glow Wire Flammability Index GWFI | 960 / – | °C | IEC 60695–2–12 |
| GWFI (Thickness (2) tested) | 1 / – | mm | IEC 60695–2–12 |

ELECTRICAL PROPERTIES

DRY / COND

| | | | |
|-------------------------------|-------------|-------|---------------|
| Relative permittivity (100Hz) | 4.3 / 10 | – | IEC 62631–2–1 |
| Relative permittivity (1 MHz) | 3.8 / 3.9 | – | IEC 62631–2–1 |
| Dissipation factor (100 Hz) | 130 / 3000 | E–4 | IEC 62631–2–1 |
| Dissipation factor (1 MHz) | 210 / 1000 | 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 |
| Comparative tracking index | 575 / * | V | IEC 60112 |

OTHER PROPERTIES

DRY / COND

| | | | |
|---------------------|----------|-------------------|----------------|
| Water absorption | 6.5 / * | % | Sim. to ISO 62 |
| Humidity absorption | 2 / * | % | Sim. to ISO 62 |
| Density | 1340 / – | kg/m ³ | ISO 1183 |

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