

Akulon[®] Ultraflow K220-HGM44

PA6-(GF+MD)40

20% Glass Reinforced, 20% Mineral Reinforced, Heat Stabilized

Print Date: 2024-09-17

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|--------------|--------|----------------|
| RHEOLOGICAL PROPERTIES | DRY / COND | | |
| Molding shrinkage (parallel) | 0.3 / * | % | ISO 294-4 |
| Molding shrinkage (normal) | 0.9 / * | % | ISO 294–4 |
| | | | |
| MECHANICAL PROPERTIES | DRY / COND | | |
| Tensile modulus | 11000 / 6000 | MPa | ISO 527-1/-2 |
| Stress at break | 135 / 70 | MPa | ISO 527-1/-2 |
| Strain at break | 2 / 3.5 | % | ISO 527-1/-2 |
| Flexural modulus | 9000 / - | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 40 / 50 | kJ/m² | ISO 179/1eU |
| Charpy impact strength (-30°C) | 35 / 35 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 7/9 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | 4.5 / 4.5 | 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) | 185 / * | °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) | 0.3 / * | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 0.5 / * | E-4/°C | ISO 11359-1/-2 |
| | | | |
| ELECTRICAL PROPERTIES | DRY / COND | | |
| Relative permittivity (100Hz) | 3.5 / 14 | _ | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 3.3 / 4.5 | _ | IEC 62631-2-1 |

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|-----------------------------|-----------------|-------|----------------|
| Dissipation factor (100 Hz) | 50 / 4000 | E-4 | IEC 62631-2-1 |
| Dissipation factor (1 MHz) | 130 / 1200 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E12 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | - / 1E13 | Ohm | IEC 62631-3-2 |
| Electric strength | 35 / 30 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 550 / 550 | V | IEC 60112 |
| | | | |
| OTHER PROPERTIES | DRY / COND | | |
| Water absorption | 5.5 / * | % | Sim. to ISO 62 |
| Humidity absorption | 1.6 / * | % | Sim. to ISO 62 |
| Density | 1470 / – | kg/m³ | ISO 1183 |

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