

# Akulon<sup>®</sup> Ultraflow K–FHGM24

## PA6–(GF+MD)30

10% Glass Reinforced, 20% Mineral Reinforced, Heat Stabilized, High Flow

Print Date: 2024–03–27

| PROPERTIES                                   | TYPICAL DATA      | UNIT              | TEST METHOD    |
|--|-------------------|-------------------|----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                |                   |                   |                |
|  | <b>DRY / COND</b> |                   |                |
| Molding shrinkage (parallel)                 | 0.4 / *           | %                 | ISO 294–4      |
| Molding shrinkage (normal)                   | 0.93 / *          | %                 | ISO 294–4      |
| <b>MECHANICAL PROPERTIES</b>                 |                   |                   |                |
|  | <b>DRY / COND</b> |                   |                |
| Tensile modulus                              | 7500 / 3500       | MPa               | ISO 527–1/–2   |
| Stress at break                              | 97 / 55           | MPa               | ISO 527–1/–2   |
| Strain at break                              | 2.3 / 5           | %                 | ISO 527–1/–2   |
| Flexural modulus                             | 6750 / 3250       | MPa               | ISO 178        |
| Flexural strength                            | 145 / 75          | MPa               | ISO 178        |
| Charpy impact strength (+23°C)               | 35 / 45           | kJ/m <sup>2</sup> | ISO 179/1eU    |
| Charpy impact strength (–30°C)               | 30 / 30           | kJ/m <sup>2</sup> | ISO 179/1eU    |
| Charpy notched impact strength (+23°C)       | 3.5 / 6           | kJ/m <sup>2</sup> | ISO 179/1eA    |
| Charpy notched impact strength (–30°C)       | 3 / 4             | kJ/m <sup>2</sup> | ISO 179/1eA    |
| <b>THERMAL PROPERTIES</b>                    |                   |                   |                |
|  | <b>DRY / COND</b> |                   |                |
| Melting temperature (10°C/min)               | 220 / *           | °C                | ISO 11357–1/–3 |
| Temp. of deflection under load (1.80 MPa)    | 190 / *           | °C                | ISO 75–1/–2    |
| Temp. of deflection under load (0.45 MPa)    | 210 / *           | °C                | ISO 75–1/–2    |
| Coeff. of linear therm. expansion (parallel) | 0.35 / *          | E–4/°C            | ISO 11359–1/–2 |
| Coeff. of linear therm. expansion (normal)   | 0.6 / *           | E–4/°C            | ISO 11359–1/–2 |
| <b>ELECTRICAL PROPERTIES</b>                 |                   |                   |                |
|  | <b>DRY / COND</b> |                   |                |
| Relative permittivity (100Hz)                | 3.5 / 14          | –                 | IEC 62631–2–1  |

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## Property Data

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| <i>PROPERTIES</i>              | <i>TYPICAL DATA</i>      | <i>UNIT</i>       | <i>TEST METHOD</i> |
|--------------------------------|--------------------------|-------------------|--------------------|
| Relative permittivity (1 MHz)  | 3.3 / 4.5                | –                 | IEC 62631–2–1      |
| Dissipation factor (100 Hz)    | 50 / 3200                | E–4               | IEC 62631–2–1      |
| Dissipation factor (1 MHz)     | 140 / 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      |
| Comparative tracking index     | 500 / –                  | V                 | IEC 60112          |
| <b><i>OTHER PROPERTIES</i></b> | <b><i>DRY / COND</i></b> |                   |                    |
| Water absorption               | 6.5 / *                  | %                 | Sim. to ISO 62     |
| Humidity absorption            | 1.9 / *                  | %                 | Sim. to ISO 62     |
| Density                        | 1350 / –                 | kg/m <sup>3</sup> | ISO 1183           |

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