

# Akulon<sup>®</sup> Ultraflow K–FHG6

## PA6–GF30

30% Glass Reinforced, Heat Stabilized, High Flow

| PROPERTIES                                   | TYPICAL DATA | UNIT              | TEST METHOD    |
|----------------------------------------------|--------------|-------------------|----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                |              |                   |                |
|                                              | DRY / COND   |                   |                |
| Molding shrinkage (parallel)                 | 0.3 / *      | %                 | ISO 294–4      |
| Molding shrinkage (normal)                   | 1.1 / *      | %                 | ISO 294–4      |
| <b>MECHANICAL PROPERTIES</b>                 |              |                   |                |
|                                              | DRY / COND   |                   |                |
| Tensile modulus                              | 9500 / 5700  | MPa               | ISO 527–1/–2   |
| Stress at break                              | 175 / 105    | MPa               | ISO 527–1/–2   |
| Strain at break                              | 3.3 / 7      | %                 | ISO 527–1/–2   |
| Flexural modulus                             | 9000 / 5500  | MPa               | ISO 178        |
| Flexural strength                            | 270 / 160    | MPa               | ISO 178        |
| Tensile modulus (200°C)                      | 2650         | MPa               | ISO 527–1/–2   |
| Stress at break (200°C)                      | 40           | MPa               | ISO 527–1/–2   |
| Strain at break (200°C)                      | 8.4          | %                 | ISO 527–1/–2   |
| Charpy impact strength (+23°C)               | 85 / 90      | kJ/m <sup>2</sup> | ISO 179/1eU    |
| Charpy impact strength (–30°C)               | 65 / 65      | kJ/m <sup>2</sup> | ISO 179/1eU    |
| Charpy notched impact strength (+23°C)       | 12.5 / 22    | kJ/m <sup>2</sup> | ISO 179/1eA    |
| Charpy notched impact strength (–30°C)       | 10 / 10      | kJ/m <sup>2</sup> | ISO 179/1eA    |
| <b>THERMAL PROPERTIES</b>                    |              |                   |                |
|                                              | DRY / COND   |                   |                |
| Melting temperature (10°C/min)               | 220 / *      | °C                | ISO 11357–1/–3 |
| Temp. of deflection under load (1.80 MPa)    | 200 / *      | °C                | ISO 75–1/–2    |
| Temp. of deflection under load (0.45 MPa)    | 220 / *      | °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)   | 0.7 / *      | E–4/°C            | ISO 11359–1/–2 |

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| <b>ELECTRICAL PROPERTIES</b>  | <b>DRY / COND</b> |       |                |
| Relative permittivity (100Hz) | 3.5 / 14          | –     | IEC 62631–2–1  |
| Relative permittivity (1 MHz) | 3.3 / 5           | –     | IEC 62631–2–1  |
| Dissipation factor (100 Hz)   | 50 / 3000         | E–4   | IEC 62631–2–1  |
| Dissipation factor (1 MHz)    | 150 / 1200        | E–4   | IEC 62631–2–1  |
| Volume resistivity            | >1E13 / 1E12      | Ohm*m | IEC 62631–3–1  |
| Surface resistivity           | – / 1E13          | Ohm   | IEC 62631–3–2  |
| Comparative tracking index    | * / 450           | V     | IEC 60112      |
| <b>OTHER PROPERTIES</b>       | <b>DRY / COND</b> |       |                |
| Water absorption              | 6 / *             | %     | Sim. to ISO 62 |
| Humidity absorption           | 1.8 / *           | %     | Sim. to ISO 62 |
| Density                       | 1350 / –          | kg/m³ | ISO 1183       |