

# Akulon<sup>®</sup> Ultraflow K–FG12

## PA6–GF60

60% Glass Reinforced, High Flow

| PROPERTIES                                   | TYPICAL DATA      | UNIT              | TEST METHOD     |
|----------------------------------------------|-------------------|-------------------|-----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                |                   |                   |                 |
|                                              | <b>DRY / COND</b> |                   |                 |
| Molding shrinkage (parallel)                 | 0.2 / *           | %                 | ISO 294–4       |
| Molding shrinkage (normal)                   | 0.8 / *           | %                 | ISO 294–4       |
| <b>MECHANICAL PROPERTIES</b>                 |                   |                   |                 |
|                                              | <b>DRY / COND</b> |                   |                 |
| Tensile modulus                              | 20000 / 14000     | MPa               | ISO 527–1/–2    |
| Stress at break                              | 235 / 160         | MPa               | ISO 527–1/–2    |
| Strain at break                              | 2.2 / 4           | %                 | ISO 527–1/–2    |
| Flexural modulus                             | 19500 / –         | MPa               | ISO 178         |
| Flexural strength                            | 365 / –           | MPa               | ISO 178         |
| Charpy impact strength (+23°C)               | 90 / 100          | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy impact strength (–30°C)               | 85 / 85           | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | 15 / 25           | kJ/m <sup>2</sup> | ISO 179/1eA     |
| Charpy notched impact strength (–30°C)       | 12 / 12           | 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)    | 210 / *           | °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) | 0.1 / *           | E–4/°C            | ISO 11359–1/–2  |
| Coeff. of linear therm. expansion (normal)   | 0.4 / *           | E–4/°C            | ISO 11359–1/–2  |
| Burning Behav. at 3.0 mm nom. thickn.        | HB / *            | class             | IEC 60695–11–10 |
| Thickness tested                             | 3 / *             | mm                | IEC 60695–11–10 |
| Burning Behav. at 0.75 mm nom. thickn.       | HB / *            | class             | IEC 60695–11–10 |

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|---------------------|--------------|-------|-----------------|
| Thickness tested    | 0.75 / *     | mm    | IEC 60695–11–10 |
| OTHER PROPERTIES    | DRY / COND   |       |                 |
| Water absorption    | 3.6 / *      | %     | Sim. to ISO 62  |
| Humidity absorption | 1 / *        | %     | Sim. to ISO 62  |
| Density             | 1700 / –     | kg/m³ | ISO 1183        |