

# Akulon® Ultraflow K-FHG8

## PA6-GF40

40% Glass Reinforced, Heat Stabilized, High Flow

Print Date: 2018-12-13

| 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)                   | 0.9 / *           | %                 | ISO 294-4       |
| <b>Mechanical properties</b>                 | <b>dry / cond</b> |                   |                 |
| Tensile modulus                              | 12500 / 8500      | MPa               | ISO 527-1/-2    |
| Stress at break                              | 195 / 135         | MPa               | ISO 527-1/-2    |
| Strain at break                              | 3 / 6             | %                 | ISO 527-1/-2    |
| Flexural modulus                             | 11300 / -         | MPa               | ISO 178         |
| Flexural strength                            | 275 / -           | MPa               | ISO 178         |
| Charpy impact strength (+23°C)               | 95 / 100          | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy impact strength (-30°C)               | 75 / 75           | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | 17 / 24           | 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)    | 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) | 0.15 / *          | E-4/°C            | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | 0.6 / *           | E-4/°C            | ISO 11359-1/-2  |
| Burning Behav. at 1.5 mm nom. thickn.        | HB / *            | class             | IEC 60695-11-10 |

**Electrical properties** **dry / cond**

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|-------------------------------|---------------|-------|-------------|
| Relative permittivity (100Hz) | 3.5 / 14      | -     | IEC 60250   |
| Relative permittivity (1 MHz) | 3.3 / 4.3     | -     | IEC 60250   |
| Dissipation factor (100 Hz)   | 50 / 3000     | E-4   | IEC 60250   |
| Dissipation factor (1 MHz)    | 150 / 1200    | E-4   | IEC 60250   |
| Volume resistivity            | >1E13 / >1E13 | Ohm*m | IEC 60093   |
| Surface resistivity           | * / >1E15     | Ohm   | IEC 60093   |
| Comparative tracking index    | 500 / -       | V     | IEC 60112   |

## Other properties

dry / cond

|                     |          |                   |                |
|---------------------|----------|-------------------|----------------|
| Water absorption    | 5.4 / *  | %                 | Sim. to ISO 62 |
| Humidity absorption | 1.7 / *  | %                 | Sim. to ISO 62 |
| Density             | 1450 / - | kg/m <sup>3</sup> | ISO 1183       |

