

# Xytron™ G4020DW–FC

## PPS–GF40

40% Glass Reinforced, Drinking Water Grade, Food Contact Quality, Flame Retardant

| PROPERTIES                     | TYPICAL DATA | UNIT  | TEST METHOD  |
|--------------------------------|--------------|-------|--------------|
| <b>RHEOLOGICAL PROPERTIES</b>  |              | VALUE |              |
| Molding shrinkage (parallel)   | 0.2          | %     | ISO 294–4    |
| Molding shrinkage (normal)     | 0.5          | %     | ISO 294–4    |
| <b>MECHANICAL PROPERTIES</b>   |              | VALUE |              |
| Tensile modulus                | 15000        | MPa   | ISO 527–1/–2 |
| Tensile modulus (120°C)        | 6700         | MPa   | ISO 527–1/–2 |
| Tensile modulus (160°C)        | 5300         | MPa   | ISO 527–1/–2 |
| Tensile modulus (200°C)        | 4100         | MPa   | ISO 527–1/–2 |
| Stress at break                | 200          | MPa   | ISO 527–1/–2 |
| Stress at break (120°C)        | 85           | MPa   | ISO 527–1/–2 |
| Stress at break (160°C)        | 65           | MPa   | ISO 527–1/–2 |
| Stress at break (200°C)        | 50           | MPa   | ISO 527–1/–2 |
| Strain at break                | 2            | %     | ISO 527–1/–2 |
| Strain at break (120°C)        | 4.1          | %     | ISO 527–1/–2 |
| Strain at break (160°C)        | 3.8          | %     | ISO 527–1/–2 |
| Strain at break (200°C)        | 3.9          | %     | ISO 527–1/–2 |
| Flexural modulus               | 14000        | MPa   | ISO 178      |
| Flexural strength              | 280          | MPa   | ISO 178      |
| Flexural modulus (120°C)       | 8200         | MPa   | ISO 178      |
| Flexural modulus (160°C)       | 5000         | MPa   | ISO 178      |
| Flexural modulus (200°C)       | 4300         | MPa   | ISO 178      |
| Charpy impact strength (+23°C) | 60           | kJ/m² | ISO 179/1eU  |
| Charpy impact strength (–30°C) | 62           | kJ/m² | ISO 179/1eU  |

## Property Data

# Xytron™ G4020DW–FC

| PROPERTIES                             | TYPICAL DATA | UNIT  | TEST METHOD |
|----------------------------------------|--------------|-------|-------------|
| Charpy notched impact strength (+23°C) | 10.5         | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (–30°C) | 11           | kJ/m² | ISO 179/1eA |

| THERMAL PROPERTIES                                | VALUE |        |                 |
|---------------------------------------------------|-------|--------|-----------------|
| Melting temperature (10°C/min)                    | 280   | °C     | ISO 11357–1/–3  |
| Temp. of deflection under load (1.80 MPa)         | 265   | °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)        | 0.4   | E–4/°C | ISO 11359–1/–2  |
| Coef. of lin. therm expansion, parallel, above Tg | 0.15  | E–4/°C | ISO 11359–1/–2  |
| Coef. of lin. therm expansion, normal, above Tg   | 1.1   | E–4/°C | ISO 11359–1/–2  |
| Burning Behav. at 3.0 mm nom. thickn.             | V–0   | class  | IEC 60695–11–10 |
| Thickness tested                                  | 3     | mm     | IEC 60695–11–10 |
| UL recognition                                    | Yes   | –      | –               |
| Relative Temperature Index – electrical           | 130   | °C     | UL746B          |
| RTI electrical (Thickness (1) tested)             | 0.4   | mm     | UL746B          |

| ELECTRICAL PROPERTIES        | VALUE |       |                 |
|------------------------------|-------|-------|-----------------|
| Volume resistivity           | >1E13 | Ohm*m | IEC 62631–3–1   |
| Electric strength            | 22    | kV/mm | IEC 60243–1     |
| Comparative tracking index   | 150   | V     | IEC 60112       |
| Dissipation factor (5GHz)    | 55    | E–4   | IEC 61189–2–721 |
| Relative permittivity (5GHz) | 4     | –     | IEC 61189–2–721 |

| OTHER PROPERTIES    | VALUE |       |                |
|---------------------|-------|-------|----------------|
| Density             | 1650  | kg/m³ | ISO 1183       |
| Humidity absorption | 0.04  | %     | Sim. to ISO 62 |