

Stanyl[®] 46SF5030

PA46–GF30 FR(17)

30% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

Print Date: 2024–03–27

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|-------------------|-------------------|-------------------|
| RHEOLOGICAL PROPERTIES | | | |
| | DRY / COND | | |
| Molding shrinkage [parallel] | 0.4 / * | % | Sim. to ISO 294–4 |
| Molding shrinkage [normal] | 1.1 / * | % | Sim. to ISO 294–4 |
| MECHANICAL PROPERTIES | | | |
| | DRY / COND | | |
| Tensile modulus | 12000 / 7500 | MPa | ISO 527–1/–2 |
| Stress at break | 170 / 110 | MPa | ISO 527–1/–2 |
| Strain at break | 1.9 / 2.8 | % | ISO 527–1/–2 |
| Flexural modulus | 11000 / 6800 | MPa | ISO 178 |
| Flexural strength | 240 / 165 | MPa | ISO 178 |
| Charpy impact strength (+23°C) | 40 / 40 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 13 / 13 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (–30°C) | 12 / 12 | kJ/m ² | ISO 179/1eA |
| THERMAL PROPERTIES | | | |
| | DRY / COND | | |
| Melting temperature (10°C/min) | 295 / * | °C | ISO 11357–1/–3 |
| Temp. of deflection under load (1.80 MPa) | 290 / * | °C | ISO 75–1/–2 |
| Temp. of deflection under load (0.45 MPa) | 290 / * | °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) | 0.45 / * | E–4/°C | ISO 11359–1/–2 |
| Burning Behav. at 1.5 mm nom. thickn. | V–0 / * | class | IEC 60695–11–10 |
| Thickness tested | 1.5 / * | mm | IEC 60695–11–10 |
| UL recognition | Yes / * | – | – |
| Burning Behav. at 3.0 mm nom. thickn. | V–0 / * | class | IEC 60695–11–10 |

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Property Data

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| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|---|---------------------|-------------|--------------------|
| Thickness tested | 3 / * | mm | IEC 60695-11-10 |
| UL recognition | Yes / * | – | – |
| Relative Temperature Index – electrical | 65 | °C | UL746B |
| RTI electrical (Thickness (1) tested) | 0.35 | mm | UL746B |

ELECTRICAL PROPERTIES

DRY / COND

| | | | |
|-------------------------------|-------------|-------|---------------|
| Volume resistivity | >1E13 / 1E8 | Ohm*m | IEC 62631-3-1 |
| Electric strength | 30 / 20 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 225 / – | V | IEC 60112 |
| Relative permittivity (100Hz) | 4.3 / – | – | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 4 / – | – | IEC 62631-2-1 |

OTHER PROPERTIES

DRY / COND

| | | | |
|---------------------|----------|-------------------|----------------|
| Humidity absorption | 1.6 / * | % | Sim. to ISO 62 |
| Density | 1680 / – | kg/m ³ | ISO 1183 |

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