

Akulon[®] S223–HG7

PA66–GF35

35% Glass Reinforced, Heat Stabilized

Print Date: 2024–10–15

| PROPERTIES | TYPICAL DATA | UNIT | TEST METHOD |
|--|-------------------|-------------------|-------------------|
| RHEOLOGICAL PROPERTIES | | | |
| | DRY / COND | | |
| Molding shrinkage [parallel] | 0.2 / * | % | Sim. to ISO 294–4 |
| Molding shrinkage [normal] | 1 / * | % | Sim. to ISO 294–4 |
| MECHANICAL PROPERTIES | | | |
| | DRY / COND | | |
| Tensile modulus | 11500 / 7550 | MPa | ISO 527–1/–2 |
| Stress at break | 210 / 140 | MPa | ISO 527–1/–2 |
| Strain at break | 3.5 / 5.8 | % | ISO 527–1/–2 |
| Flexural modulus | 11000 / 7500 | MPa | ISO 178 |
| Flexural strength | 310 / 210 | MPa | ISO 178 |
| Tensile modulus (200°C) | 3850 | MPa | ISO 527–1/–2 |
| Stress at break (200°C) | 76 | MPa | ISO 527–1/–2 |
| Strain at break (200°C) | 9.2 | % | ISO 527–1/–2 |
| Charpy impact strength (+23°C) | 90 / 95 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (–30°C) | 74 / 74 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 12.8 / 18 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (–30°C) | 11 / 11 | kJ/m ² | ISO 179/1eA |
| THERMAL PROPERTIES | | | |
| | DRY / COND | | |
| Melting temperature (10°C/min) | 260 / * | °C | ISO 11357–1/–3 |
| Temp. of deflection under load (1.80 MPa) | 247 / * | °C | ISO 75–1/–2 |
| Temp. of deflection under load (0.45 MPa) | 260 / * | °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) | 0.6 / * | E–4/°C | ISO 11359–1/–2 |

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Property Data

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| <i>PROPERTIES</i> | <i>TYPICAL DATA</i> | <i>UNIT</i> | <i>TEST METHOD</i> |
|--|--------------------------|-------------------|--------------------|
| Burning Behav. at 1.5 mm nom. thickn. | HB / * | class | IEC 60695-11-10 |
| Thickness tested | 1.5 / * | mm | IEC 60695-11-10 |
| 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 |
| Thickness tested | 0.75 / * | mm | IEC 60695-11-10 |
| | | | |
| <i>ELECTRICAL PROPERTIES</i> | <i>DRY / COND</i> | | |
| Relative permittivity (100Hz) | 4 / 10 | – | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 3.6 / 4 | – | IEC 62631-2-1 |
| Dissipation factor (100 Hz) | 50 / 3000 | E-4 | IEC 62631-2-1 |
| Dissipation factor (1 MHz) | 140 / 1000 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E12 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | – / 1E13 | Ohm | IEC 62631-3-2 |
| Electric strength | 35 / 30 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 500 / 500 | V | IEC 60112 |
| | | | |
| <i>OTHER PROPERTIES</i> | <i>DRY / COND</i> | | |
| Water absorption | 5.5 / * | % | Sim. to ISO 62 |
| Humidity absorption | 1.5 / * | % | Sim. to ISO 62 |
| Density | 1410 / – | kg/m ³ | ISO 1183 |

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