

Product Texts

Injection Molding, 15% Glass Reinforced, Heat Stabilized, Excellent Surface Properties

ISO 1043 PA6-GF15

| Mechanical properties | dry / cond | Unit | Test Standard |
|--|--------------------|-------------------|----------------------|
| ISO Data | | | |
| ^[C] Tensile Modulus | 6300 / 4000 | MPa | ISO 527 |
| ^[C] Stress at break | 120 / 70 | MPa | ISO 527 |
| ^[C] Strain at break | 3 / 11 | % | ISO 527 |
| ^[C] Charpy impact strength, +23°C | 30 / 40 | kJ/m ² | ISO 179/1eU |
| ^[C] Charpy impact strength, -30°C | 35 / 35 | kJ/m ² | ISO 179/1eU |
| ^[C] Charpy notched impact strength, +23°C | - / 10 | kJ/m ² | ISO 179/1eA |
| ^[C] Charpy notched impact strength, -30°C | - / 10 | kJ/m ² | ISO 179/1eA |
| ^[C] Puncture - maximum force, +23°C | 560 / - | N | ISO 6603-2 |
| ^[C] Puncture - maximum force, -30°C | 505 / - | N | ISO 6603-2 |
| ^[C] Puncture energy, +23°C | 2 / - | J | ISO 6603-2 |
| ^[C] Puncture energy, -30°C | 1.5 / - | J | ISO 6603-2 |

[C]: CAMPUS

| Thermal properties | dry / cond | Unit | Test Standard |
|--|---------------------------------|-------------|----------------------|
| ISO Data | | | |
| ^[C] Melting temperature, 10°C/min | 218 / * | °C | ISO 11357-1/-3 |
| ^[C] Temp. of deflection under load, 1.80 MPa | 180 / * | °C | ISO 75-1/-2 |
| ^[C] Temp. of deflection under load, 0.45 MPa | 210 / * | °C | ISO 75-1/-2 |
| ^[C] Coeff. of linear therm. expansion, parallel | 30 / * | E-6/K | ISO 11359-1/-2 |
| ^[C] Coeff. of linear therm. expansion, normal | 80 / * | E-6/K | ISO 11359-1/-2 |
| ^[C] Burning Behav. at 1.5 mm nom. thickn. Thickness tested | HB / * 1.5 / * | class mm | IEC 60695-11-10 - |
| ^[C] Oxygen index | 23 / * | % | ISO 4589-1/-2 |

[C]: CAMPUS

| Electrical properties | dry / cond | Unit | Test Standard |
|---|-------------------|-------------|----------------------|
| ISO Data | | | |
| ^[C] Relative permittivity, 100Hz | 4.1 / 10 | - | IEC 62631-2-1 |
| ^[C] Relative permittivity, 1MHz | 3.7 / 4.3 | - | IEC 62631-2-1 |
| ^[C] Dissipation factor, 100Hz | 80 / 2200 | E-4 | IEC 62631-2-1 |
| ^[C] Dissipation factor, 1MHz | 180 / 700 | E-4 | IEC 62631-2-1 |
| ^[C] Volume resistivity | 1E11 / 1E9 | Ohm*m | IEC 62631-3-1 |
| ^[C] Surface resistivity | * / 1E13 | Ohm | IEC 62631-3-2 |
| ^[C] Electric strength | 30 / 30 | kV/mm | IEC 60243-1 |
| ^[C] Comparative tracking index | 375 / - | - | IEC 60112 |

[C]: CAMPUS

| Other properties | dry / cond | Unit | Test Standard |
|------------------------------------|-------------------|-------------------|----------------------|
| ^[C] Water absorption | 7.8 / * | % | Sim. to ISO 62 |
| ^[C] Humidity absorption | 2.6 / * | % | Sim. to ISO 62 |
| ^[C] Density | 1240 / - | kg/m ³ | ISO 1183 |

[C]: CAMPUS

| Material specific properties | dry / cond | Unit | Test Standard |
|-------------------------------------|-------------------|--------------------|----------------------|
| ISO Data | | | |
| ^[C] Viscosity number | 138 / * | cm ³ /g | ISO 307, 1157, 1628 |

[C]: CAMPUS

| Test specimen production | Value | Unit | Test Standard |
|--|--------------|-------------|----------------------|
| ISO Data | | | |
| ^[C] Injection Molding, melt temperature | 280 | °C | ISO 294 |

| | | | |
|-------------------------------------|----|----|---------|
| Injection Molding, mold temperature | 80 | °C | ISO 294 |
|-------------------------------------|----|----|---------|

[C]: CAMPUS

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature | 80 | °C | - |
| Pre-drying - Time | 2 - 6 | h | - |
| Processing humidity | ≤0.12 | % | - |
| Melt temperature | 260 - 290 | °C | - |
| Mold temperature | 80 - 100 | °C | - |

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Additives

Release agent

Special Characteristics

U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding

PREPROCESSING

Residual moisture content: 0.03 - 0.12%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 260 - 290 °C

Mold temperature: 80 - 100 °C