

**Product Texts**

33% Glass Reinforced, Heat Stabilized

ISO 1043 PA66-GF33

| Processing/Physical Characteristics        | dry / cond | Unit | Test Standard   |
|--|------------|------|-----------------|
| <b>ISO Data</b>                            |            |      |                 |
| <sup>[C]</sup> Molding shrinkage, parallel | 0.4 / *    | %    | ISO 294-4, 2577 |
| <sup>[C]</sup> Molding shrinkage, normal   | 0.9 / *    | %    | ISO 294-4, 2577 |

[C]: CAMPUS

| Mechanical properties                                | dry / cond   | Unit              | Test Standard |
|--|--------------|-------------------|---------------|
| <b>ISO Data</b>                                      |              |                   |               |
| <sup>[C]</sup> Tensile Modulus                       | 10500 / 8000 | MPa               | ISO 527       |
| <sup>[C]</sup> Stress at break                       | 190 / 130    | MPa               | ISO 527       |
| <sup>[C]</sup> Strain at break                       | 3.7 / 5.5    | %                 | ISO 527       |
| <sup>[C]</sup> Charpy impact strength, +23°C         | 80 / 100     | kJ/m <sup>2</sup> | ISO 179/1eU   |
| <sup>[C]</sup> Charpy impact strength, -30°C         | 70 / 70      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| <sup>[C]</sup> Charpy notched impact strength, +23°C | 14 / 20      | kJ/m <sup>2</sup> | ISO 179/1eA   |
| <sup>[C]</sup> Charpy notched impact strength, -30°C | 10 / 10      | kJ/m <sup>2</sup> | ISO 179/1eA   |

[C]: CAMPUS

| Thermal properties   | dry / cond | Unit  | Test Standard  |
|--|------------|-------|----------------|
| <b>ISO Data</b>  |            |       |                |
| <sup>[C]</sup> Melting temperature, 10°C/min               | 260 / *    | °C    | ISO 11357-1/-3 |
| <sup>[C]</sup> Temp. of deflection under load, 1.80 MPa    | 248 / *    | °C    | ISO 75-1/-2    |
| <sup>[C]</sup> Temp. of deflection under load, 0.45 MPa    | 260 / *    | °C    | ISO 75-1/-2    |
| <sup>[C]</sup> Coeff. of linear therm. expansion, parallel | 20 / *     | E-6/K | ISO 11359-1/-2 |
| <sup>[C]</sup> Coeff. of linear therm. expansion, normal   | 70 / *     | E-6/K | ISO 11359-1/-2 |

[C]: CAMPUS

| Electrical properties                       | dry / cond  | Unit  | Test Standard |
|---|-------------|-------|---------------|
| <b>ISO Data</b>                             |             |       |               |
| <sup>[C]</sup> Relative permittivity, 100Hz | 3.8 / 10    | -     | IEC 62631-2-1 |
| <sup>[C]</sup> Relative permittivity, 1MHz  | 3.5 / 4.1   | -     | IEC 62631-2-1 |
| <sup>[C]</sup> Dissipation factor, 100Hz    | 90 / 2800   | E-4   | IEC 62631-2-1 |
| <sup>[C]</sup> Dissipation factor, 1MHz     | 160 / 800   | E-4   | IEC 62631-2-1 |
| <sup>[C]</sup> Volume resistivity           | 1E12 / 1E10 | Ohm*m | IEC 62631-3-1 |
| <sup>[C]</sup> Surface resistivity          | * / 1E13    | Ohm   | IEC 62631-3-2 |
| <sup>[C]</sup> Electric strength            | 30 / 25     | kV/mm | IEC 60243-1   |

[C]: CAMPUS

| Other properties                   | dry / cond | Unit              | Test Standard  |
|------------------------------------|------------|-------------------|----------------|
| <sup>[C]</sup> Water absorption    | 8 / *      | %                 | Sim. to ISO 62 |
| <sup>[C]</sup> Humidity absorption | 2.1 / *    | %                 | Sim. to ISO 62 |
| <sup>[C]</sup> Density             | 1390 / *   | kg/m <sup>3</sup> | ISO 1183       |

[C]: CAMPUS

**Characteristics****Processing**

Injection Molding

**Special Characteristics**

Heat stabilized or stable to heat

**Delivery form**

Pellets

**Regional Availability**

North America

**Additives**

Lubricants, Release agent

**Other text information****Injection molding**

[Injection Molding Recommendations](#)

[Steel recommendations for molds screws and barrels](#)

[Trouble shooting guideline for injection molding](#)