

**Product Texts**

Glass fibre reinforced partially aromatic polyamide for injection moulding. High toughness, stiffness and strength, low water absorption, high melting point (295 °C).

<b>Processing/Physical Characteristics</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	<b>0.5 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	<b>1.0 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Ejection temperature	<b>228</b>	°C	-

[C]: CAMPUS

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>9000 / 9000</b>	MPa	ISO 527
<sup>[C]</sup> Stress at break	<b>185 / -</b>	MPa	ISO 527
<sup>[C]</sup> Strain at break	<b>3 / -</b>	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1000h	<b>* / 6500</b>	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	<b>80 / -</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>8 / -</b>	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	<b>295 / *</b>	°C	ISO 11357-1/-3
<sup>[C]</sup> Glass transition temperature, 10°C/min	<b>105 / *</b>	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>245 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	<b>285 / *</b>	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>25 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>55 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	<b>HB / *</b>	class	IEC 60695-11-10
Thickness tested	<b>1.6 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-
<sup>[C]</sup> Burning Behav. at thickness h	<b>HB / *</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-
<sup>[C]</sup> Oxygen index	<b>24 / *</b>	%	ISO 4589-1/-2

[C]: CAMPUS

<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 1MHz	<b>4.3 / 4.5</b>	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	<b>300 / 400</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	<b>1E13 / 1E12</b>	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	<b>* / 1E13</b>	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	<b>33 / 31</b>	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	<b>- / 600</b>	-	IEC 60112

[C]: CAMPUS

<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<sup>[C]</sup> Water absorption	<b>5.5 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>1.3 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1350 / -</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

<b>Material specific properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Viscosity number	<b>130 / *</b>	cm <sup>3</sup> /g	ISO 307, 1157, 1628

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	<b>320</b>	°C	ISO 294
Injection Molding, mold temperature	<b>100</b>	°C	ISO 294
Injection Molding, injection velocity	<b>200</b>	mm/s	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	<b>110</b>	°C	-
Pre-drying - Time	<b>8</b>	h	-
Processing humidity	<b>≤0.15</b>	%	-
Melt temperature	<b>310 - 330</b>	°C	-
Mold temperature	<b>80 - 120</b>	°C	-

**Characteristics**

**Processing**

Injection Molding

**Delivery form**

Pellets

**Additives**

Release agent

**Special Characteristics**

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**

Pre/Post-processing, max. allowed water content: .15 %

Pre/Post-processing, Pre-drying, Temperature: 110 °C

Pre/Post-processing, Pre-drying, Time: 8 h

**PROCESSING**

injection molding, Melt temperature, range: 310 - 330 °C

injection molding, Melt temperature, recommended: 320 °C

injection molding, Mold temperature, range: 80 - 120 °C

injection molding, Mold temperature, recommended: 100 °C

injection molding, Dwell time, thermoplastics: 5 min