

**Product Texts**

Injection Molding, Unreinforced

ISO 1043 PA6

<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>3000 / 1000</b>	MPa	ISO 527
<sup>[C]</sup> Yield stress	<b>80 / 40</b>	MPa	ISO 527
<sup>[C]</sup> Yield strain	<b>4 / 20</b>	%	ISO 527
<sup>[C]</sup> Nominal strain at break	<b>20 / &gt;50</b>	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1h	<b>* / 800</b>	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	<b>* / 600</b>	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	<b>N / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>N / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>- / 20</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>- / 10</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Puncture - maximum force, +23°C	<b>5900 / -</b>	N	ISO 6603-2
<sup>[C]</sup> Puncture - maximum force, -30°C	<b>7300 / -</b>	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	<b>90 / -</b>	J	ISO 6603-2
<sup>[C]</sup> Puncture energy, -30°C	<b>85 / -</b>	J	ISO 6603-2

[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>222 / *</b>	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>60 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	<b>160 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>100 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>110 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	<b>V-2 / *</b>	class	IEC 60695-11-10
Thickness tested	<b>1.5 / *</b>	mm	-
<sup>[C]</sup> Oxygen index	<b>26 / *</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, 100Hz	<b>4 / 15</b>	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	<b>3.5 / 4</b>	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	<b>170 / 2000</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	<b>200 / 1200</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	<b>1E13 / 1E10</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>30 / 30</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>10 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>3 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1140 / -</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>134 / *</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	270	°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 - 280	°C	-
Mold temperature	80 - 100	°C	-

## Characteristics

### Processing

Injection Molding

### Delivery form

Pellets

### 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 - 280 °C

Mold temperature: 80 - 100 °C