

## Product Texts

- MVR (300 °C/1.2 kg) 12 cm³/10 min
- medical devices
- suitable for ETO and steam sterilization at 121 °C
- biocompatible according to many ISO 10993-1 test requirements
- medium viscosity
- easy release

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	<b>12</b>	cm³/10min	ISO 1133
Temperature	<b>300</b>	°C	-
Load	<b>1.2</b>	kg	-
Melt flow index, MFI	<b>13</b>	g/10min	ISO 1133
Temperature	<b>300</b>	°C	-
Load	<b>1.2</b>	kg	-
<sup>[C]</sup> Molding shrinkage, parallel	<b>0.7</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	<b>0.8</b>	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>2400</b>	MPa	ISO 527
<sup>[C]</sup> Yield stress	<b>66</b>	MPa	ISO 527
<sup>[C]</sup> Yield strain	<b>6.1</b>	%	ISO 527
<sup>[C]</sup> Nominal strain at break	<b>&gt;50</b>	%	ISO 527
Flexural modulus, 23°C	<b>2400</b>	MPa	ISO 178
Flexural strength	<b>97</b>	MPa	ISO 178
<sup>[C]</sup> Tensile creep modulus, 1h	<b>2200</b>	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	<b>1900</b>	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	<b>N</b>	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	<b>70</b>	kJ/m²	ISO 179/1eA
Type of failure	<b>P</b>	-	-
Charpy notched impact strength, -30°C	<b>16</b>	kJ/m²	ISO 179/1eA
Type of failure	<b>C</b>	-	-
Izod notched impact strength, +23°C	<b>70</b>	kJ/m²	ISO 180/1A
Izod notched impact strength	<b>15</b>	kJ/m²	ISO 180/1A
Temperature	<b>-30</b>	°C	-
<sup>[C]</sup> Puncture - maximum force, +23°C	<b>5400</b>	N	ISO 6603-2
<sup>[C]</sup> Puncture - maximum force, -30°C	<b>6300</b>	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	<b>60</b>	J	ISO 6603-2
<sup>[C]</sup> Puncture energy, -30°C	<b>65</b>	J	ISO 6603-2
Ball indentation hardness	<b>115</b>	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Glass transition temperature, 10°C/min	<b>145</b>	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>124</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	<b>137</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	<b>144</b>	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>65</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>65</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at thickness h	<b>V-2</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>27</b>	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	<b>850</b>	°C	IEC 60695-2-12
GWFI - thickness tested (1)	<b>1.5</b>	mm	-

Glow Wire Flammability Index (GWFI)	<b>930</b>	°C	IEC 60695-2-12
GWFI - thickness tested (2)	<b>3</b>	mm	-
Glow Wire Ignition Temperature (GWIT)	<b>875</b>	°C	IEC 60695-2-13
GWIT - thickness tested (1)	<b>0.75</b>	mm	-
Glow Wire Ignition Temperature (GWIT)	<b>875</b>	°C	IEC 60695-2-13
GWIT - thickness tested (2)	<b>1.5</b>	mm	-
Glow Wire Ignition Temperature (GWIT)	<b>875</b>	°C	IEC 60695-2-13
GWIT - thickness tested (3)	<b>3</b>	mm	-
<b>Other Standards<sup>[S]</sup></b>			
Thermal Conductivity, solid state	<b>0.2</b>	W/(m K)	ISO 8302

S: These properties are reported by the producer according standards that are different to our defaults. [C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 100Hz	<b>3.1</b>	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	<b>3</b>	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	<b>5</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	<b>95</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	<b>&gt;1E13</b>	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	<b>&gt;1E15</b>	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	<b>34</b>	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	<b>250</b>	-	IEC 60112

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Haze	<b>0.8<sup>[1]</sup></b>	-	ISO 14782
<sup>[C]</sup> Luminous transmittance	<b>89</b>	%	ISO 13468-1, -2
<b>Other Standards<sup>[S]</sup></b>			
Index of Refraction	<b>1.59</b>	-	ISO 489

1: 3mm S: These properties are reported by the producer according standards that are different to our defaults. [C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Water absorption	<b>0.3</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>0.12</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1200</b>	kg/m <sup>3</sup>	ISO 1183
Bulk density	<b>660</b>	kg/m <sup>3</sup>	-

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	<b>290</b>	°C	ISO 294
Injection Molding, mold temperature	<b>80</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>120</b>	°C	-
Pre-drying - Time	<b>4</b>	h	-
Processing humidity	<b>≤0.02</b>	%	-
Melt temperature	<b>280 - 320</b>	°C	-
Mold temperature	<b>70 - 110</b>	°C	-
Zone 1	<b>250 - 270</b>	°C	-
Zone 2	<b>270 - 290</b>	°C	-
Zone 3	<b>285 - 305</b>	°C	-
Nozzle temperature	<b>270 - 305</b>	°C	-
Back pressure	<b>10 - 20</b>	MPa	-

**Characteristics****Processing**

Injection Molding

**Additives**

Release agent

**Special Characteristics**Transparent, Opaque, Sterilizable, Ethylene Oxide (EtO)  
Sterilization, Steam sterilization**Certifications**Contains renewable resources, Medical Grade, Biocompatibility  
ISO 10993, ISCC Plus**Applications**

Medical

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