

## Product Texts

- MVR (300 °C/1.2 kg) 34 cm³/10 min
- medical devices
- suitable for ETO and steam sterilization at 121 °C
- biocompatible according to many ISO 10993-1 test requirements
- low viscosity
- easy release

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melt volume-flow rate, MVR	<b>34</b>	cm³/10min	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>0.7</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>65</b>	MPa	ISO 527
<sup>[C]</sup> Yield strain	<b>6</b>	%	ISO 527
<sup>[C]</sup> Nominal strain at break	<b>&gt;50</b>	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1h	<b>2100</b>	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	<b>1700</b>	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	<b>N</b>	kJ/m²	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>N</b>	kJ/m²	ISO 179/1eU
<sup>[C]</sup> Puncture - maximum force, +23°C	<b>4900</b>	N	ISO 6603-2
<sup>[C]</sup> Puncture - maximum force, -30°C	<b>5900</b>	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	<b>55</b>	J	ISO 6603-2
<sup>[C]</sup> Puncture energy, -30°C	<b>60</b>	J	ISO 6603-2

[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>145</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	-

[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>90</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>			
<sup>[C]</sup> Luminous transmittance	89	%	ISO 13468-1, -2
<sup>[C]</sup> : CAMPUS			

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

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294
<sup>[C]</sup> : CAMPUS			

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	2 - 3	h	-
Processing humidity	≤0.02	%	-
Melt temperature	280 - 320	°C	-
Mold temperature	80 - 100	°C	-

## Characteristics

### Processing

Injection Molding

### Delivery form

Pellets

### Additives

Release agent

### Special Characteristics

Transparent, Sterilizable, Ethylene Oxide (EtO) Sterilization, Steam sterilization, Gamma irradiation sterilization

### Certifications

Medical Grade, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved

### Applications

Medical

### Regional Availability

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

## Other text information

### Injection molding

#### PREPROCESSING

Max. Water content: 0.01 - 0.02 %

Drying temperature: 120 °C

Drying time:

Circulating air drying oven (50 % fresh air) 4-8 h

Fresh air dryer (high speed dryer) 2-4 h

Dry air dryer 2-3 h

#### PROCESSING

Melt temperature: 280-320 °C

Mold temperature: 80-100 °C

Use open nozzle.