

Product Texts

- MVR (300 °C/1.2 kg) 6.0 cm³/10 min
- medical devices
- suitable for ETO and steam sterilization at 121 °C
- biocompatible according to many ISO 10993-1 test requirements
- high viscosity

Processing/Physical Characteristics

	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	6	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
^[C] Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.8	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties

	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2350	MPa	ISO 527
^[C] Yield stress	65	MPa	ISO 527
^[C] Yield strain	6.3	%	ISO 527
^[C] Nominal strain at break	>50	%	ISO 527
^[C] Tensile creep modulus, 1h	2200	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	1900	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
^[C] Puncture - maximum force, +23°C	5600	N	ISO 6603-2
^[C] Puncture - maximum force, -30°C	6500	N	ISO 6603-2
^[C] Puncture energy, +23°C	60	J	ISO 6603-2
^[C] Puncture energy, -30°C	70	J	ISO 6603-2

[C]: CAMPUS

Thermal properties

	Value	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	149	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	129	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	141	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	149	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	65	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	65	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Optical properties

	Value	Unit	Test Standard
ISO Data			
^[C] Luminous transmittance	89	%	ISO 13468-1, -2

[C]: CAMPUS

Other properties

	Value	Unit	Test Standard
^[C] Water absorption	0.3	%	Sim. to ISO 62
^[C] Humidity absorption	0.12	%	Sim. to ISO 62
^[C] Density	1200	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production

	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	300	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

[C]: 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, Other Extrusion, Blow Molding

Delivery form

Pellets

Special Characteristics

Transparent, Opaque, 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.