

Product Texts

- MVR (300 °C/1.2 kg) 15 cm³/10 min
- medical devices
- suitable for sterilization with high-energy radiation
- biocompatible according to many ISO 10993-1 test requirements
- medium viscosity
- transparent parts for medical devices

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	15	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
^[C] Molding shrinkage, parallel	0.6	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.7	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2400	MPa	ISO 527
^[C] Yield stress	67	MPa	ISO 527
^[C] Yield strain	6.1	%	ISO 527
^[C] Nominal strain at break	>50	%	ISO 527
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N	kJ/m ²	ISO 179/1eU
^[C] Puncture - maximum force, +23°C	5300	N	ISO 6603-2
^[C] Puncture - maximum force, -30°C	6200	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	142	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	122	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	134	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	141	°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] Oxygen index	27	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	>1E15	Ohm	IEC 62631-3-2

[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	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Injection Molding, injection velocity	200	mm/s	ISO 294
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[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

Delivery form

Pellets

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.