

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
ISO Data			
^[C] Melt volume-flow rate, MVR	34	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
Melt flow index, MFI	37	g/10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
^[C] Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.7	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2400	MPa	ISO 527
^[C] Yield stress	65	MPa	ISO 527
^[C] Yield strain	6	%	ISO 527
^[C] Nominal strain at break	>50	%	ISO 527
Flexural modulus, 23°C	2350	MPa	ISO 178
Flexural strength	97	MPa	ISO 178
^[C] Tensile creep modulus, 1h	2100	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	1700	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	55	kJ/m ²	ISO 179/1eA
Type of failure	P(C)	-	-
Charpy notched impact strength, -30°C	12	kJ/m ²	ISO 179/1eA
Type of failure	C	-	-
Izod notched impact strength, +23°C	55	kJ/m ²	ISO 180/1A
Izod notched impact strength	12	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
^[C] Puncture - maximum force, +23°C	4900	N	ISO 6603-2
^[C] Puncture - maximum force, -30°C	5900	N	ISO 6603-2
^[C] Puncture energy, +23°C	55	J	ISO 6603-2
^[C] Puncture energy, -30°C	60	J	ISO 6603-2
Ball indentation hardness	115	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	145	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	124	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	137	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	145	°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] Burning Behav. at thickness h	V-2	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-
Glow Wire Ignition Temperature (GWIT)	875	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.75	mm	-
Glow Wire Ignition Temperature (GWIT)	875	°C	IEC 60695-2-13

GWIT - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature (GWIT)	900	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
Other Standards^[S]			
Thermal Conductivity, solid state	0.2	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
ISO Data			
^[C] Relative permittivity, 100Hz	3.1	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	5	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	90	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	>1E15	Ohm	IEC 62631-3-2
^[C] Electric strength	34	kV/mm	IEC 60243-1
^[C] Comparative tracking index	250	-	IEC 60112

[C]: CAMPUS

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

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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
Bulk density	660	kg/m ³	-

[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

[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 - 120	°C	-
Zone 1	250 - 260	°C	-
Zone 2	270 - 280	°C	-
Zone 3	280 - 290	°C	-
Nozzle temperature	290 - 300	°C	-
Back pressure	5 - 15	MPa	-

Characteristics

Processing

Injection Molding

Additives

Release agent

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

Medical

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