

Product Texts

High heat specialty polycarbonate. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO10993 or USP Class VI). EtO, steam, gamma and e-beam sterilizable.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	29	cm ³ /10min	ISO 1133
Temperature	330	°C	-
Load	2.16	kg	-
ASTM Data			
Melt Flow Index, MFI	30	g/10min	ASTM D 1238
Temperature	330	°C	-
Load	2.16	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2150	MPa	ISO 527
Yield stress	65	MPa	ISO 527
Yield strain	7	%	ISO 527
Stress at break	60	MPa	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	2120	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	57	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	13	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	53	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	11	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2100	MPa	ASTM D 638
Tensile Strength at Yield	65	MPa	ASTM D 638
Tensile Strength at Break	70	MPa	ASTM D 638
Elongation at Yield	7	%	ASTM D 638
Elongation at Break	112	%	ASTM D 638
Flexural Modulus	2200	MPa	ASTM D 790
Rockwell Hardness	R 122	-	ASTM D 785
Izod Impact notched, 1/8 in	600	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	120	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	N	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	125	°C	ISO 75-1/-2
Vicat softening temperature, B	154	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	155	°C	ISO 306
ASTM Data			
DTUL @ 264 psi	142	°C	ASTM D 648
Vicat Temperature	160	°C	ASTM D 1525
Thermal Conductivity, solid state	0.0303	W/(m K)	ASTM C 177
Specific Heat	1250	J/(kg K)	ASTM C 351

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dissipation Factor, 60 Hz	0.0012	-	ASTM D 150
Dielectric Constant, 60 Hz	3.15	-	ASTM D 150
Dielectric Constant, 1 MHz	3	-	ASTM D 150
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

LEXAN™ Copolymer HPH4404 - Asia

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Other properties	Value	Unit	Test Standard
Water absorption	0.16	%	Sim. to ISO 62
Humidity absorption	0.35	%	Sim. to ISO 62
Density	1200	kg/m ³	ISO 1183
Density	1200	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	295 - 315	°C	-
Mold temperature	70 - 95	°C	-
Zone 1	270 - 295	°C	-
Zone 2	280 - 305	°C	-
Zone 3	295 - 315	°C	-
Screw speed	40 - 70	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Ethylene Oxide (EtO) Sterilization, Steam sterilization, Gamma irradiation sterilization, Electron beam (e-beam) sterilization

Certifications

US Pharmacopeia Class VI Approved

Applications

Medical

Regional Availability

Asia Pacific