LEXAN™ Copolymer HPX4 - Americas

PC | Saudi Basic Industries Corporation (SABIC)

Product Texts

Medium flow specialty polycarbonate - improved processability & autoclavability. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO10993 or USP Class VI). EtO and steam sterilizable.

UL Yellow Card Link E121562-522550

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**9**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**10**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2350**	MPa	ISO 527
Yield stress	**57**	MPa	ISO 527
Yield strain	**5.5**	%	ISO 527
Stress at break	**61**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**2150**	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**65**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**55**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	**65**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	**55**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2210**	MPa	ASTM D 638
Tensile Strength at Yield	**58**	MPa	ASTM D 638
Tensile Strength at Break	**64**	MPa	ASTM D 638
Elongation at Yield	**5.8**	%	ASTM D 638
Elongation at Break	**131**	%	ASTM D 638
Flexural Modulus	**2210**	MPa	ASTM D 790
Rockwell Hardness	**L89**	-	ASTM D 785
Izod Impact notched, 1/8 in	**890**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**795**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**118**	°C	ISO 75-1/-2
Vicat softening temperature, B	**141**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**142**	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**2.5**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	**825**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-
ASTM Data			
DTUL @ 264 psi	**124**	°C	ASTM D 648
Vicat Temperature	**141**	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Surface Resistivity	**1E15**	Ohm	ASTM D 257
Volume Resistivity	**1E15**	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Water absorption	**0.12**	%	Sim. to ISO 62
Humidity absorption	**0.09**	%	Sim. to ISO 62
Density	**1190**	kg/m³	ISO 1183
Density	**1190**	kg/m³	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

Applications
Medical

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

Regional Availability
North America

Certifications
US Pharmacopeia Class VI Approved