LEXAN™ COPOLYMER 4704

REGION EUROPE

DESCRIPTION

High heat resistant polycarbonate copolymer, provides DTUL of 300F at 264 psi. FDA food contact compliant in limited colors. Effective January 15th, 2008 this grade will no longer be supported with biocompatibility information and should not be used for medical applications which require biocompatibility. Alternative grade HPH4704.

TYPICAL PROPERTY VALUES

Revision 20260527

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield, 50 mm/min	70	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	7	%	ISO 527
Tensile Strain, break, 50 mm/min	>50	%	ISO 527
Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
Flexural Modulus, 2 mm/min	2300	MPa	ISO 178
Hardness, Rockwell R	127	-	ISO 2039-2
IMPACT [1]			
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	44	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	11	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	45	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	12	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m²	ISO 179/1eU
THERMAL [1]			
Thermal Conductivity	0.21	W/m-°C	ISO 8302
CTE, 23°C to 80°C, flow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	185	°C	ISO 306
Vicat Softening Temp, Rate B/50	165	°C	ISO 306
Vicat Softening Temp, Rate B/120	167	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	165	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	150	°C	ISO 75/Ae
PHYSICAL [1]			
Mold Shrinkage on Tensile Bar, flow [2]	0.9	%	SABIC method
Density	1.2	g/cm³	ISO 1183
Melt Volume Rate, MVR at 300°C/5.0 kg	6	cm³/10 min	ISO 1133
ELECTRICAL [1]			
Relative Permittivity, 1 MHz	3.1	-	IEC 60250
Dissipation Factor			
100 Hz	0.026	-	IEC 60250
FLAME CHARACTERISTICS [3]			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Glow Wire Flammability Index 850°C, passes at [4]	2	mm	IEC 60695-2-12
INJECTION MOLDING [5]			
Drying Temperature	125 – 135	°C	
Drying Time	3 – 4	Hrs	
Melt Temperature	325 – 360	°C	
Nozzle Temperature	320 – 340	°C	
Front - Zone 3 Temperature	320 – 340	°C	
Middle - Zone 2 Temperature	310 – 330	°C	
Rear - Zone 1 Temperature	300 – 320	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	100 – 125	°C	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.,The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(3) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(4) Value shown here is based on internal measurement.

(5) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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