LEXAN™ 4504 resin

Polyphthalate Carbonate

SABIC Innovative Plastics

Message:

High heat resistant polycarbonate copolymer, provides DTUL of 290F 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 HPH4504.

General Information			
Features	Copolymer Heat resistance, high Compliance of Food Exposure		
Agency Ratings	FDA Food Exposure, Not Rated		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			ASTM D792
--	1.20	g/cm³	ASTM D792
--	1.19	g/cm³	ASTM D792
Specific Volume	0.835	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	3.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.70 - 0.80	%	Internal method
Water Absorption (24 hr)	0.16	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	85		ASTM D785
Class r	122		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [1]			ASTM D638
Yield	65.5	MPa	ASTM D638
Fracture	71.7	MPa	ASTM D638
Tensile Elongation [2] (Break)	120	%	ASTM D638
Flexural Modulus [3] (50.0 mm Span)	2030	MPa	ASTM D790
Flexural Strength [4] (Yield, 50.0 mm Span)	95.1	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	640	J/m	ASTM D256
Unnotched Izod Impact (23°C)	3200	J/m	ASTM D4812
Dart Drop Impact (23°C)	149	J	ASTM D3029
Tensile Impact Strength [5]	578	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**

Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	143	°C	ASTM D648
CLTE - Flow (-40 to 95°C)	9.2E-5	cm/cm/°C	ASTM E831
Specific Heat	1260	J/kg/°C	ASTM C351
Thermal Conductivity	0.21	W/m/K	ASTM C177
RTI Elec	125	°C	UL 746
RTI Imp	125	°C	UL 746
RTI	125	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 2.6E+17	ohms·cm	ASTM D257
Dielectric Strength (3.20 mm, in Air)	20	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.15		ASTM D150
60 Hz	3.15		ASTM D150
1 MHz	3.00		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	1.2E-3		ASTM D150
60 Hz	1.2E-3		ASTM D150
100 Hz	0.024		ASTM D150
Comparative Tracking Index (CTI)	PLC 3		UL 746
High Amp Arc Ignition (HAI)	PLC 4		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.47 mm)	V-2		UL 94
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.600		ASTM D542
Transmittance (2540 µm)	85.0	%	ASTM D1003
Haze (2540 µm)	1.0	%	ASTM D1003
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	316 - 338	°C	
Middle Temperature	327 - 349	°C	
Front Temperature	338 - 360	°C	
Nozzle Temperature	332 - 354	°C	
Processing (Melt) Temp	338 - 360	°C	
Mold Temperature	82.2 - 116	°C	
Back Pressure	0.345 - 0.689	MPa	

Screw Speed	40 - 70	rpm
Vent Depth	0.025 - 0.076	mm

NOTE	
1.	Type 1, 50mm/min
2.	Type 1, 50mm/min
3.	1.3 mm/min
4.	1.3 mm/min
5.	Type S

Recommended distributors for this material

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