LEXAN™ 4701R resin

Polyphthalate Carbonate

SABIC Innovative Plastics

Message:

High heat resistant polyphthlate carbonate, provides DTUL of 300F at 264 psi.

General Information			
Features	Heat resistance, high		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.19	g/cm³	ASTM D792
Specific Volume	0.830	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	2.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.80 - 1.0	%	Internal method
Water Absorption (24 hr)	0.19	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
Class m	92		ASTM D785
Class r	127		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [1]			ASTM D638
Yield	65.5	MPa	ASTM D638
Fracture	77.9	MPa	ASTM D638
Tensile Elongation [2] (Break)	78	%	ASTM D638
Flexural Modulus [3] (50.0 mm Span)	2330	MPa	ASTM D790
Flexural Strength [4] (Yield, 50.0 mm Span)	97.2	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	370	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)	149	°C	ASTM D648
CLTE - Flow (-40 to 95°C)	8.1E-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	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI	130	°C	UL 746

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 2.5E+17	ohms·cm	ASTM D257
Dielectric Strength (3.20 mm, in Air)	20	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.27		ASTM D150
60 Hz	3.27		ASTM D150
1 MHz	3.10		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	1.6E-3		ASTM D150
60 Hz	1.6E-3		ASTM D150
100 Hz	0.026		ASTM D150
Arc Resistance [6]	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 3		UL 746
High Amp Arc Ignition (HAI)	PLC 3		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746

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	327 - 349	°C
Middle Temperature	338 - 360	°C
Front Temperature	349 - 371	°C
Nozzle Temperature	343 - 366	°C
Processing (Melt) Temp	349 - 371	°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
6.	Tungsten electrode

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China