

LEXAN™ 4701R resin

Polyphthalate Carbonate

SABIC Innovative Plastics

Message:

LEXAN 4701R is a copolymer of polyphthalate carbonate resin for applications requiring high heat resistance. This grade has higher heat properties compared to LEXAN 4501.

General Information			
Features	Copolymer		
	Heat resistance, high		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	6.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.90	%	Internal method
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	127		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2300	MPa	ISO 527-2/1
Tensile Stress (Yield)	70.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	7.0	%	ISO 527-2/50
Fracture	> 50	%	ISO 527-2/50
Flexural Modulus ²	2300	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	13	kJ/m ²	ISO 179/1eA
23°C	46	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ⁴			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact ⁵			ISO 180/1A
-30°C	11	kJ/m ²	ISO 180/1A
23°C	35	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ⁶			ISO 180/1U
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Thermal	Nominal Value	Unit	Test Method

Heat Deflection Temperature ⁷			
0.45 MPa, unannealed, 100 mm span	165	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	150	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	185	°C	ISO 306/A50
--	175	°C	ISO 306/B50
--	170	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE - Flow (23 to 80°C)	8.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.21	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Relative Permittivity (1 MHz)	3.10		IEC 60250
Dissipation Factor (100 Hz)	0.026		IEC 60250
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index (2.00 mm)	850	°C	IEC 60695-2-12
Injection	Nominal Value	Unit	
Drying Temperature	125 - 135	°C	
Drying Time	3.0 - 4.0	hr	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	300 - 320	°C	
Middle Temperature	310 - 330	°C	
Front Temperature	320 - 340	°C	
Nozzle Temperature	320 - 340	°C	
Processing (Melt) Temp	325 - 360	°C	
Mold Temperature	100 - 125	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*3 sp=62mm		
4.	80*10*3 sp=62mm		
5.	80*10*3		
6.	80*10*3		
7.	120*10*4 mm		

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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

