

LEXAN™ 945A resin

Polycarbonate

SABIC Innovative Plastics

Message:

LEXAN 945A Polycarbonate (PC) resin is a non-filled, injection moldable grade. This non-chlorinated, non-brominated flame retardant PC has an UL-94 V0 rating and is available in transparent and tinted color options. LEXAN 945A is a general purpose resin designed to meet the needs of various applications.

General Information			
UL YellowCard	E207780-587073		
Additive	Flame retardancy		
Features	Chlorine Free		
	General		
	Bromine-free		
	Flame retardancy		
Uses	General		
Appearance	Available colors		
	Clear/transparent		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.60 - 0.80	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	2270	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	62.0	MPa	ASTM D638
Fracture	67.0	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	6.0	%	ASTM D638
Fracture	130	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	2370	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 50.0 mm Span)	101	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	800	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	79.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	137	°C	ASTM D648

1.8 MPa, unannealed, 3.20mm	126	°C	ASTM D648
Vicat Softening Temperature	143	°C	ASTM D1525 ⁶
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	6.8E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	7.4E-5	cm/cm/°C	ASTM E831
RTI Elec	130	°C	UL 746
RTI Imp	120	°C	UL 746
RTI	130	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Arc Resistance ⁷	PLC 7		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		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 3		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.52 mm	V-2		UL 94
3.04 mm	V-0		UL 94
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.00 mm)	850	°C	IEC 60695-2-13
Oxygen Index	35	%	ISO 4589-2
Optical	Nominal Value	Unit	Test Method
Transmittance (2540 μm)	> 85.0	%	ASTM D1003
Haze (2540 μm)	1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	260 - 280	°C	
Middle Temperature	270 - 290	°C	
Front Temperature	280 - 310	°C	
Nozzle Temperature	270 - 290	°C	
Processing (Melt) Temp	280 - 310	°C	
Mold Temperature	80.0 - 110	°C	
NOTE			
1.	50 mm/min		
2.	Type 1, 50mm/min		
3.	Type 1, 50mm/min		
4.	1.3 mm/min		
5.	1.3 mm/min		
6.	标准 B (120°C/h), 载荷2 (50N)		

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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

