

LEXAN™ 945U resin

Polycarbonate

SABIC Innovative Plastics

Message:

LEXAN 945U 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 UV stabilized, providing additional weathering capability. LEXAN resin 945U is available in various opaque color options and is a general-purpose resin ideal for a wide variety of applications.

General Information			
UL YellowCard	E207780-565275	E207780-228404	
Additive	UV stabilizer		
	Flame retardancy		
Features	Chlorine Free		
	General		
	Bromine-free		
	Flame retardancy		
Uses	General		
Appearance	Opacity		
	Available colors		
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
Outdoor Suitability	f1		UL 746C
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	65.0	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	6.0	%	ASTM D638
Fracture	130	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	2340	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)	73.0	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	6.7E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	6.7E-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 3		UL 746
High Amp Arc Ignition (HAI)	PLC 2		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 (1.52 mm)	V-0		UL 94
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.50 mm)	800	°C	IEC 60695-2-13
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	271 - 293	°C	
Middle Temperature	282 - 304	°C	
Front Temperature	293 - 316	°C	
Nozzle Temperature	288 - 310	°C	
Processing (Melt) Temp	293 - 316	°C	
Mold Temperature	71.1 - 93.3	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	40 - 70	rpm	
Vent Depth	0.025 - 0.076	mm	
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)
7.	Tungsten electrode

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