

General Information

Product Description

Lexan* 925U 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 925U resin is available in opaque color options and is a general-purpose resin that is an excellent candidate for a wide variety of applications.

General

Material Status	• Commercial: Active	
Availability	• North America	
Additive	• Ignition Resistant	• UV Stabilizer
Features	• Bromine Free • Chlorine Free	• Flame Retardant • General Purpose
Uses	• General Purpose	
Appearance	• Colors Available	• Opaque
Forms	• Pellets	
Processing Method	• Injection Molding	

ASTM and ISO Properties ¹

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity	1.19	1.19	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	14 g/10 min	14 g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.126 in (3.20 mm))	0.0060 to 0.0080 in/in	0.60 to 0.80 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ²	329000 psi	2270 MPa	ASTM D638
Tensile Strength ³			ASTM D638
Yield	8990 psi	62.0 MPa	
Break	9430 psi	65.0 MPa	
Tensile Elongation ³			ASTM D638
Yield	6.0 %	6.0 %	
Break	130 %	130 %	
Flexural Modulus ⁴ (1.97 in (50.0 mm) Span)	339000 psi	2340 MPa	ASTM D790
Flexural Strength ⁴			ASTM D790
Yield, 1.97 in (50.0 mm) Span	14600 psi	101 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	15.0 ft-lb/in	801 J/m	ASTM D256
Instrumented Dart Impact			ASTM D3763
73°F (23°C), Total Energy	646 in-lb	73.0 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.126 in (3.20 mm)	279 °F	137 °C	
264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	259 °F	126 °C	
Vicat Softening Temperature	289 °F	143 °C	ASTM D1525 ⁵
CLTE			ASTM E831
Flow: -40 to 104°F (-40 to 40°C)	0.000037 in/in/°F	0.000067 cm/cm/°C	
Transverse: -40 to 104°F (-40 to 40°C)	0.000037 in/in/°F	0.000067 cm/cm/°C	

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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Arc Resistance (PLC) ⁶	PLC 7	PLC 7	ASTM D495
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating - UL			UL 94
0.0315 in (0.800 mm)	V-2	V-2	
0.0598 in (1.52 mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.0394 in (1.00 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.0394 in (1.00 mm)	1610 °F	875 °C	
UL 746	Nominal Value (English)	Nominal Value (SI)	Test Method
RTI Str	266 °F	130 °C	UL 746
RTI Imp	248 °F	120 °C	UL 746
RTI Elec	266 °F	130 °C	UL 746
Comparative Tracking Index (CTI) (PLC)	PLC 3	PLC 3	UL 746
High Voltage Arc Tracking Rate (HVTR) (PLC)			UL 746
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Hot-wire Ignition (HWI) (PLC)	PLC 2	PLC 2	UL 746
High Amp Arc Ignition (HAI) (PLC)	PLC 2	PLC 2	UL 746
Outdoor Suitability	f1	f1	UL 746C

Processing Information

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	250 °F	121 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Drying Time, Maximum	48 hr	48 hr
Suggested Max Moisture	0.020 %	0.020 %
Suggested Shot Size	40 to 60 %	40 to 60 %
Rear Temperature	510 to 550 °F	266 to 288 °C
Middle Temperature	530 to 570 °F	277 to 299 °C
Front Temperature	550 to 590 °F	288 to 310 °C
Nozzle Temperature	540 to 580 °F	282 to 304 °C
Processing (Melt) Temp	550 to 590 °F	288 to 310 °C
Mold Temperature	160 to 200 °F	71.1 to 93.3 °C
Back Pressure	50.0 to 100 psi	0.345 to 0.689 MPa
Screw Speed	40 to 70 rpm	40 to 70 rpm
Vent Depth	0.0010 to 0.0030 in	0.025 to 0.076 mm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 2.0 in/min (50 mm/min)

³ Type I, 2.0 in/min (50 mm/min)

⁴ 0.051 in/min (1.3 mm/min)

⁵ Rate B (120°C/h), Loading 2 (50 N)

⁶ Tungsten Electrode