



LEXAN™ EXL9134 resin

General Information

Product Description

LEXAN EXL9134 polycarbonate (PC) siloxane copolymer resin is a UV stabilized high flow opaque injection molding (IM) grade. This resin offers UL94 V0 @ 1.5mm flame retardancy based on non-bromine, non-chlorine FR systems, extreme low temperature ductility (-40 deg C) characteristics and excellent processability with opportunities for shorter IM cycle times compared to standard PC. LEXAN EXL9134 resin is a product available in a wide range of opaque colors and may be an excellent candidate for a wide range of applications.

General

Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Flame Retardant	• UV Stabilizer	
Features	• Bromine Free • Chlorine Free • Copolymer	• Ductile • Fast Molding Cycle • Flame Retardant	• Good Processability • High Flow
Appearance	• Colors Available	• Opaque	
Processing Method	• Injection Molding		

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm ³	ASTM D792
Density	1.19	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	16	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	15.1	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.80	%	Internal Method
Water Absorption (Saturation, 23°C)	0.40	%	ISO 62
Water Absorption (Equilibrium, 23°C, 50% RH)	0.15	%	ISO 62
Outdoor Suitability	f1		UL 746C
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	2100	MPa	ASTM D638
Tensile Modulus	2000	MPa	ISO 527-2/1
Tensile Strength ³ (Yield)	58.0	MPa	ASTM D638
Tensile Stress (Yield)	56.0	MPa	ISO 527-2/50
Tensile Strength ³ (Break)	59.0	MPa	ASTM D638
Tensile Stress (Break)	57.0	MPa	ISO 527-2/50
Tensile Elongation ³ (Yield)	6.0	%	ASTM D638
Tensile Strain (Yield)	6.0	%	ISO 527-2/50
Tensile Elongation ³ (Break)	120	%	ASTM D638
Tensile Strain (Break)	110	%	ISO 527-2/50
Flexural Modulus ⁴ (50.0 mm Span)	2400	MPa	ASTM D790

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Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus ⁵	2100	MPa	ISO 178
Flexural Stress ^{5,6}	87.0	MPa	ISO 178
Flexural Strength ⁴ (Yield, 50.0 mm Span)	92.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁷			ISO 179/1eA
-30°C	35	kJ/m²	
23°C	70	kJ/m²	
Charpy Unnotched Impact Strength ⁷			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			ASTM D256
-30°C	660	J/m	
23°C	790	J/m	
Notched Izod Impact Strength ⁸			ISO 180/1A
-30°C	30	kJ/m²	
23°C	65	kJ/m²	
Unnotched Izod Impact Strength ⁸			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Instrumented Dart Impact (23°C, Total Energy)	67.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 3.20 mm	123	°C	
Heat Deflection Temperature ⁹			ISO 75-2/Af
1.8 MPa, Unannealed, 64.0 mm Span	118	°C	
Vicat Softening Temperature	140	°C	ASTM D1525 ¹⁰
Vicat Softening Temperature			
--	139	°C	ISO 306/B50
--	141	°C	ISO 306/B120
CLTE - Flow (-40 to 40°C)	6.1E-5	cm/cm/°C	ASTM E831
CLTE - Flow (-40 to 40°C)	6.1E-5	cm/cm/°C	ISO 11359-2
CLTE - Transverse (-40 to 40°C)	6.2E-5	cm/cm/°C	ASTM E831
CLTE - Transverse (-40 to 40°C)	6.2E-5	cm/cm/°C	ISO 11359-2
RTI Elec	125	°C	UL 746
RTI Imp	115	°C	UL 746
RTI Str	120	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	V-0		
3.00 mm	5VA		
Glow Wire Flammability Index (1.50 mm)	960	°C	IEC 60695-2-12

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Flammability	Nominal Value	Unit	Test Method
Glow Wire Ignition Temperature			IEC 60695-2-13
1.50 mm	825	°C	
3.00 mm	825	°C	

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	270 to 295	°C	
Middle Temperature	280 to 305	°C	
Front Temperature	295 to 315	°C	
Nozzle Temperature	290 to 310	°C	
Processing (Melt) Temp	295 to 315	°C	
Mold Temperature	70.0 to 95.0	°C	
Back Pressure	0.300 to 0.700	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	

Notes

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

² 5.0 mm/min

³ Type I, 50 mm/min

⁴ 1.3 mm/min

⁵ 2.0 mm/min

⁶ Yield

⁷ 80*10*3 sp=62mm

⁸ 80*10*3

⁹ 80*10*4 mm

¹⁰ Rate B (120°C/h), Loading 2 (50 N)