

LEXAN™ EXL6013 resin

Polycarbonate

SABIC Innovative Plastics Europe

Message:

LEXAN EXL6013 is especially developed for applications requiring a high impact performance combined with an improved chemical resistance over standard polycarbonate.

General Information			
UL YellowCard	E45329-236695		
Features	Good Chemical Resistance		
	High Impact Resistance		
RoHS Compliance	RoHS Compliant		
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/1.2 kg)	5.50	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.60 to 0.80	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	90.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2100	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	55.0	MPa	
Break	60.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	7.0	%	
Break	100	%	
Flexural Modulus ²	2150	MPa	ISO 178
Flexural Stress	80.0	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	10.0	mg	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	70	kJ/m ²	
23°C	75	kJ/m ²	
Charpy Unnotched Impact Strength ⁴			ISO 179/1eU

-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength ⁵			ISO 180/1A
-30°C	60	kJ/m ²	
23°C	70	kJ/m ²	
Unnotched Izod Impact Strength ⁶			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁷			
0.45 MPa, Unannealed, 100 mm Span	131	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	122	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	138	°C	ISO 306/B50
--	140	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 80°C	7.0E-5	cm/cm/°C	
Transverse : 23 to 80°C	7.0E-5	cm/cm/°C	
Thermal Conductivity	0.20	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength (3.20 mm, in Oil)	17	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.70		
60 Hz	2.70		
1 MHz	2.70		
Dissipation Factor			IEC 60250
50 Hz	1.0E-3		
60 Hz	1.0E-3		
1 MHz	0.010		
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.00 mm)	V-1		UL 94
Glow Wire Flammability Index (1.00 mm)	850	°C	IEC 60695-2-12
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	270 to 300	°C	

Middle Temperature	280 to 310	°C
Front Temperature	290 to 320	°C
Nozzle Temperature	280 to 310	°C
Processing (Melt) Temp	290 to 320	°C
Mold Temperature	80.0 to 120	°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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