+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

LEXAN™ 2814R resin

Polycarbonate

SABIC Innovative Plastics Europe

Technical Data

Product Description	
LEXAN 2814R is a high viscosity, 10% glass reinforced, flame retardant grade, especially developed to meet the CSTB M2 flammability rating.	

General		
Material Status	• Commercial: Active	
Literature [1]	• Technical Datasheet	
UL Yellow Card [2]	• E45329-236651	
Search for UL Yellow Card	• SABIC Innovative Plastics Europe • LEXAN™	
Availability	• Europe	
Filler / Reinforcement	• Glass Fiber Reinforcement, 10% Filler by Weight	
Additive	• Flame Retardant	
Features	• Flame Retardant	• High Viscosity
Agency Ratings	• CSTB M2	
RoHS Compliance	• RoHS Compliant	
Processing Method	• Injection Molding	

Physical	Nominal Value	Unit	Test Method
Density	1.25	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow [4]	0.20 to 0.60	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.31	%	
Equilibrium, 23°C, 50% RH	0.13	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3300	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/5
Yield	60.0	MPa	
Break	45.0	MPa	
Tensile Strain			ISO 527-2/5
Yield	5.0	%	
Break	7.0	%	
Flexural Modulus [5]	3400	MPa	ISO 178
Flexural Strength [5, 6]	95.0	MPa	ISO 178
Taber Abrasion Resistance			Internal Method
1000 Cycles, 1000 g, CS-17 Wheel	11.0	mg	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C [7]	7.0	kJ/m²	ISO 179/1eA
-20°C	4.0	kJ/m²	ISO 179/2C
23°C [7]	8.0	kJ/m²	ISO 179/1eA
23°C	10	kJ/m²	ISO 179/2C
Charpy Unnotched Impact Strength [7]			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength [8]			ISO 180/1A
-30°C	7.0	kJ/m²	
23°C	8.0	kJ/m²	

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

LEXAN™ 2814R resin

Polycarbonate

SABIC Innovative Plastics Europe

Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact Strength [8]			ISO 180/1U
-30°C	110	kJ/m²	
23°C	No Break		
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	130	MPa	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature [9]			
0.45 MPa, Unannealed, 100 mm Span	140	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	132	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	150	°C	ISO 306/A50
--	141	°C	ISO 306/B50
--	143	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE - Flow (23 to 80°C)	0.000034	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.18	W/m/K	ISO 8302
RTI Elec	80.0	°C	UL 746
RTI Imp	80.0	°C	UL 746
RTI Str	80.0	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohm	IEC 60093
Volume Resistivity	> 1.0E+15	ohm·cm	IEC 60093
Electric Strength			IEC 60243-1
0.800 mm, in Oil	35	kV/mm	
1.00 mm [10]	30	kV/mm	
1.60 mm, in Oil	27	kV/mm	
3.20 mm, in Oil	17	kV/mm	
Relative Permittivity			IEC 60250
50 Hz	2.90		
60 Hz	2.90		
1 MHz	2.80		
Dissipation Factor			IEC 60250
50 Hz	0.0010		
60 Hz	0.0010		
1 MHz	0.010		
Comparative Tracking Index			IEC 60112
--	125	V	
Solution B	100	V	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.50 mm)	V-0		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
1.00 mm	850	°C	
1.60 mm	960	°C	
Oxygen Index	40	%	ISO 4589-2

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

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

LEXAN™ 2814R resin

Polycarbonate

SABIC Innovative Plastics Europe

Injection	Nominal Value	Unit
Nozzle Temperature	280 to 310	°C
Processing (Melt) Temp	290 to 320	°C
Mold Temperature	80.0 to 120	°C