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

LEXAN* FXD141R Resin

Polycarbonate

SABIC Innovative Plastics Europe

Product Description
LEXAN FXD141R is a transparent/translucent medium viscosity grade for light diffusion effects. Internal mold release. The color package may affect performance.

General		
Additive	• Mold Release	
Features	• Medium Viscosity	
RoHS Compliance	• RoHS Compliant	
Appearance	• Clear/Transparent	• Translucent
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	11.1	cm³/10min	ISO 1133
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2350	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	63.0	MPa	
Break	70.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	110	%	
Flexural Modulus [2]	2300	MPa	ISO 178
Flexural Strength [2, 3]	90.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [4]			ISO 179/1eA
-30°C	14	kJ/m²	
23°C	73	kJ/m²	
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	12.0	kJ/m²	
23°C	70.0	kJ/m²	
Unnotched Izod Impact Strength [5]			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	95.0	MPa	ISO 2039-1

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature [6]			
0.45 MPa, Unannealed, 100 mm Span	136	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	125	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	141	°C	ISO 306/B50
--	142	°C	ISO 306/B120
CLTE - Flow (23 to 80°C)	0.000070	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.20	W/m/K	ISO 8302
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
50 Hz	2.70		
60 Hz	2.70		
1E+6 Hz	2.70		
Dissipation Factor			IEC 60250
50 Hz	0.0010		
60 Hz	0.0010		
1E+6 Hz	0.010		
Comparative Tracking Index	250	V	IEC 60112
Electric Strength (3.20 mm, in Oil)	17	kV/mm	IEC 60243-1

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
0.700 mm	HB		
3.00 mm	HB		
Glow Wire Flammability Index (1.00 mm)	850	°C	IEC 60695-2-12
Oxygen Index	25	%	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	260 to 280	°C
Middle Temperature	270 to 290	°C
Front Temperature	280 to 310	°C
Nozzle Temperature	270 to 290	°C
Processing (Melt) Temp	280 to 310	°C
Mold Temperature	80.0 to 110	°C