

LEXAN™ FXD171R resin

Polycarbonate

SABIC Innovative Plastics

Message:

Transparent/translucent PC for light diffusion special effects. MFR of 25.0.

General Information			
UL YellowCard	E121562-220945		
Uses	Lighting Diffusers		
Appearance	Clear/Transparent		
	Translucent		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	25	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	2330	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	62.1	MPa	
Break	64.1	MPa	
Tensile Elongation ³			ASTM D638
Yield	6.2	%	
Break	130	%	
Flexural Modulus ⁴ (50.0 mm Span)	2340	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 50.0 mm Span)	93.1	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	780	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	70.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	138	°C	
1.8 MPa, Unannealed, 3.20 mm	127	°C	
RTI Elec	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI Str	130	°C	UL 746
Electrical	Nominal Value		Test Method
Comparative Tracking Index (CTI)	PLC 2		UL 746

High Amp Arc Ignition (HAI)	PLC 1	UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 2	UL 746
Hot-wire Ignition (HWI)	PLC 2	UL 746
Flammability	Nominal Value	Test Method
Flame Rating (1.09 mm)	V-2	UL 94
Injection	Nominal Value	Unit
Drying Temperature	121	°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	249 to 271	°C
Middle Temperature	260 to 282	°C
Front Temperature	271 to 293	°C
Nozzle Temperature	266 to 288	°C
Processing (Melt) Temp	271 to 293	°C
Mold Temperature	71.0 to 93.0	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.025 to 0.076	mm
NOTE		
1.	50 mm/min	
2.	Type I, 50 mm/min	
3.	Type I, 50 mm/min	
4.	1.3 mm/min	
5.	1.3 mm/min	

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