

LEXANT™ VISUALFX™ RESIN FXD141R

REGION AMERICAS

DESCRIPTION

Transparent/translucent PC for light diffusion special effects. Color package may affect performance.

TYPICAL PROPERTY VALUES

Revision 20240117

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 50 mm/min	61	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	68	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	6.2	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	128	%	ASTM D638
Tensile Modulus, 50 mm/min	2300	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	93	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2340	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	854	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	76	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	126	°C	ASTM D648
Relative Temp Index, Elec ⁽²⁾	130	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	130	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	130	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.19	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 300°C/ 1.2 kgf	10.8	g/ 10 min	ASTM D1238
ELECTRICAL ⁽¹⁾			
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1	≥3	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 2	≥1.14	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥1.5	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥1.14	mm	UL 746A
High Voltage Arc Track Rate (PLC)	2	PLC Code	UL 746A
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	<u>E121562-220937</u>	-	-
UL Recognized, 94HB Flame Class Rating	≥0.7	mm	UL 94
UV-light, water exposure/immersion	F2	-	UL 746C
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	295 – 315	°C	
Nozzle Temperature	290 – 310	°C	
Front - Zone 3 Temperature	295 – 315	°C	
Middle - Zone 2 Temperature	280 – 305	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Mold Temperature	70 – 95	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article. The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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