

LEXAN™ VISUALFX™ RESIN FXD123R

REGION AMERICAS

DESCRIPTION

LEXAN FXD123R compound is based on Polycarbonate (PC) resin. Added features of this grade include: Mold release and good flow grade for Light Diffusion Special Effects. Color package may affect performance. Added features include: UV stabilized.

GENERAL INFORMATION	
Features	Good Processability, Aesthetics/Visual effects, Enhanced mold release, Weatherable/UV stable
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Consumer	Home Appliances, Commercial Appliance
Electrical and Electronics	Lighting
Industrial	Industrial General

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	61	MPa	ASTM D638
Tensile Strain, break	220	%	ASTM D638
Flexural Stress	93	MPa	ASTM D790
Flexural Modulus	2200	MPa	ASTM D790
Hardness, Rockwell R	123	-	ASTM D785
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	735	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	130	°C	ASTM D648
CTE, -30°C to 30°C	7.E-05	1/°C	TMA
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	1.2	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.15	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.5 – 0.7	%	SABIC method
ELECTRICAL ⁽¹⁾			
Surface Resistivity	1.E+16	Ω	ASTM D257
Relative Permittivity, 50/60 Hz	3.2	-	ASTM D150

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Comparative Tracking Index (UL) {PLC} ⁽²⁾	2	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 4 ⁽²⁾	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1 ⁽²⁾	≥3	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 2 ⁽²⁾	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC} ⁽²⁾	2	PLC Code	UL 746A
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	<u>E121562-220864</u>	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
UV-light, water exposure/immersion	F1	-	UL 746C
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	270 – 290	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	80 – 100	°C	

- (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.
- (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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