

LEXAN™ VISUALFX™ RESIN FXE4271L

REGION ASIA

DESCRIPTION

LEXAN FXE4271L is based on Polycarbonate (PC) siloxane copolymer containing 10% glass fiber, impact modified product with excellent light-shield capability. It is designed for high flow, superior surface appearance, enhance release and good impact ductility. FXE4271L is available in white color only and targeted for light-shield applications.

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	48	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	37	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	11	%	ASTM D638
Tensile Modulus, 5 mm/min	3850	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	87	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	3600	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1880	J/m	ASTM D4812
Izod Impact, notched, 23°C	205	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	36	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	127	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D648
Vicat Softening Temp, Rate B/120	132	°C	ISO 306
Relative Temp Index, Elec ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	80	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.25	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.2 – 0.3	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm ⁽³⁾	0.4 – 0.5	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	15	g/10 min	ASTM D1238
Density	1.25	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.13	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	14	cm ³ /10 min	ISO 1133
OPTICAL ⁽¹⁾			
Light Transmission at 0.4 mm	< 2.5	%	SABIC method
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E207780-101619221	-	-
UL Recognized, 94HB Flame Class Rating	≥0.4	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 310	°C	
Nozzle Temperature	280 – 305	°C	
Front - Zone 3 Temperature	290 – 310	°C	
Middle - Zone 2 Temperature	275 – 300	°C	
Rear - Zone 1 Temperature	265 – 290	°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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