

LEXAN™ COPOLYMER FXE1414L

REGION AMERICAS

DESCRIPTION

Opaque EXL, UV-Stabilized & light shielding capability (Wall thickness >0.8mm), for portable electronics device enclosure application. Only available in white, grey and limited pastel colors. Consult CIC or PM for color availability & limitation.

TYPICAL PROPERTY VALUES

Revision 20170913

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	52	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	54	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	84	%	ASTM D 638
Tensile Modulus, 50 mm/min	2030	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	86	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2050	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	52	MPa	ISO 527
Tensile Stress, break, 50 mm/min	47	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	75	%	ISO 527
Tensile Modulus, 1 mm/min	2000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	83	MPa	ISO 178
Flexural Modulus, 2 mm/min	2110	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	766	J/m	ASTM D 256
Izod Impact, notched, -30°C	640	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	68	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	56	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	46	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	55	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	138	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	121	°C	ASTM D 648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.73E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.02E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.23E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	138	°C	ISO 306
Vicat Softening Temp, Rate B/120	146	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	118	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.28	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.4 – 0.8	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	11	g/10 min	ASTM D 1238
Density	1.28	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.17	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	10	cm ³ /10 min	ISO 1133
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	0.4	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	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	260 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	70 – 95	°C	

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