

# LEXAN™ FR RESINS LUX7189

REGION ASIA

## DESCRIPTION

LEXAN LUX7189 is an injection moldable polycarbonate (PC) with an MVR (300°C/1.2kg) 23. It contains non-brominated, non-chlorinated flame retardant systems with UL-94 V0@1.5mm rating. It is designed for high light reflectance and shielding applications with good UV weathering capability.

## TYPICAL PROPERTY VALUES

Revision 20230419

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	60	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	52	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	110	%	ASTM D638
Tensile Modulus, 50 mm/min	2700	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2700	MPa	ASTM D790
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	2140	J/m	ASTM D4812
Izod Impact, notched, 23°C	150	J/m	ASTM D256
Izod Impact, notched, -30°C	100	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	59	J	ASTM D3763
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	140	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	135	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	125	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.5E-05	1/°C	ASTM E831
<b>PHYSICAL</b>			
Specific Gravity	1.3	-	ASTM D792
Density	1.3	g/cm <sup>3</sup>	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	22	g/10 min	ASTM D1238
<b>FLAME CHARACTERISTICS</b>			
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
UL Recognized, 94-5VA Flame Class Rating	3	mm	UL 94
UL Recognized, 94-5VB Flame Class Rating	2.5	mm	UL 94
<b>INJECTION MOLDING</b>			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	270 – 295	°C	
Nozzle Temperature	265 – 290	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Front - Zone 3 Temperature	270 – 295	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	250 – 270	°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	

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