

# LEXAN<sup>TM</sup> FR RESINS LUX7169

REGION ASIA

## DESCRIPTION

LEXAN LUX7169 is an injection moldable polycarbonate (PC) with an MVR (300°C/1.2kg) 22. It contains non-brominated, non-chlorinated flame retardant systems with UL-94 V0@0.9mm rating. It is designed for high light reflectance and shielding applications with good UV weathering capability.

## TYPICAL PROPERTY VALUES

Revision 20190424

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	60	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	45	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	11	%	ASTM D 638
Tensile Modulus, 50 mm/min	2800	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	85	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2600	MPa	ASTM D 790
<b>IMPACT</b>			
Izod Impact, notched, 23°C	90	J/m	ASTM D 256
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	142	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, annealed	115	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	134	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	124	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, approximate maximum	135	°C	IEC 60695-10-2
Vicat Softening Temp, Rate B/120	143	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	115	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.38	-	ASTM D 792
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 D 1238
Density	1.38	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/sat)	0.35	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	22	cm <sup>3</sup> /10 min	ISO 1133
<b>FLAME CHARACTERISTICS</b>			
UL Recognized, 94V-0 Flame Class Rating	0.9	mm	UL 94
<b>INJECTION MOLDING</b>			
Drying Temperature	120	°C	
Drying Time	3 – 4	hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time (Cumulative)	48	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	270 – 295	°C	
Nozzle Temperature	265 – 290	°C	
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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