

LEXAN™ Resin LUX7189 Americas: COMMERCIAL

Lexan* LUX7189 is an injection moldable, high light reflectance FR grade. Contains non-brominated, non-chlorinated flame retardant systems, UV stabilized.

YPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	610	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	530	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	110	%	ASTM D 638
Tensile Modulus, 50 mm/min	27500	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	990	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	27500	kgf/cm²	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	218	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	15	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	10	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	601	cm-kgf	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	140	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	135	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	125	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.5E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.3	-	ASTM D 792
Density	1.3	g/cm³	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 300°C/1.2 kgf	22	g/10 min	ASTM D 1238
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94

Source GMD, last updated:

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⁽¹⁾ Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

⁽²⁾ Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) 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.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.



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TYPICAL PROPERTIES ¹	TYPICAL VA	LUE Unit	Standard
FLAME CHARACTERISTICS			
UL Recognized, 94-5VA Rating (3)	3	mm	UL 94
UL Recognized, 94-5VB Rating (3)	2.5	mm	UL 94

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ROCESSING PARAMETERS	TYPICAL VALUE	Unit	
Injection Molding			
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	
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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