

# LEXAN™ FR RESIN LC108

## DESCRIPTION

LEXAN LC108 compound is based on Polycarbonate (PC) resin containing 8% carbon fiber. Added features of this grade include: Electrically Conductive, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

  

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield	98	MPa	SABIC - Japan Method
Tensile Strain, break	4 – 6	%	SABIC - Japan Method
Flexural Stress	160	MPa	ASTM D790
Flexural Modulus	5980	MPa	ASTM D790
Hardness, Rockwell M	88	-	ASTM D785
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched, 23°C	88	J/m	ASTM D256
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D648
CTE, -30°C to 30°C	0.000035 – 0.000059	1/°C	TMA
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.22	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.13	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm <sup>(2)</sup>	0.2 – 0.4	%	SABIC method
<b>ELECTRICAL <sup>(3)</sup></b>			
Surface Resistivity <sup>(4)</sup>	1.E+08 – 1.E+12	Ω	ASTM D257
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 320	°C	
Nozzle Temperature	285 – 315	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Front - Zone 3 Temperature	290 – 320	°C	
Middle - Zone 2 Temperature	280 – 310	°C	
Rear - Zone 1 Temperature	270 – 300	°C	
Mold Temperature	100 – 125	°C	
Back pressure (Plastic Pressure)	3 – 8	MPa	
Screw speed (Circumferential speed)	0.1 – 0.2	m/s	
Shot to Cylinder Size	30 – 70	%	

- (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) 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.
- (3) 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.
- (4) Measurement meets requirements as specified in ASTM D4496.

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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