LEXAN™ FR RESIN LF1000

REGION ASIA

DESCRIPTION

LEXAN LF1000 compound is based on Polycarbonate (PC) resin containing 10% PTFE. Added features of this grade include: Wear Resistant, Flame Retardant and Easy Molding.

GENERAL INFORMATION	
Features	Flame Retardant, High Flow, Wear resistant
Fillers	Unreinforced, PTFE
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	66	MPa	SABIC - Japan Method
Tensile Strain, break	220 – 220	%	SABIC - Japan Method
Flexural Stress	84	MPa	ASTM D790
Flexural Modulus	2150	MPa	ASTM D790
Hardness, Rockwell R	118	-	ASTM D785
IMPACT [1]			
Izod Impact, notched, 23°C	184	J/m	ASTM D256
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	136	°C	ASTM D648
CTE, -30°C to 30°C	0.00005 – 0.00007	1/°C	TMA
Relative Temp Index, Elec [2]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	80	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.26	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.15	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm [3]	0.5 – 0.7	%	SABIC method
ELECTRICAL [1]			
Surface Resistivity	1.E+16	Ω	ASTM D257
Comparative Tracking Index (UL) {PLC} [2]	3	PLC Code	UL 746A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Hot-Wire Ignition (HWI), PLC 0 (2)	≥3.3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 2 (2)	≥1.7	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 2 (2)	≥3.3	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3 (2)	≥1.7	mm	UL 746A
High Voltage Arc Track Rate {PLC} (2)	2	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E207780-228434	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.7	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 315	°C	
Nozzle Temperature	275 – 305	°C	
Front - Zone 3 Temperature	275 – 305	°C	
Middle - Zone 2 Temperature	270 – 280	°C	
Rear - Zone 1 Temperature	270 – 280	°C	
Mold Temperature	70 – 105	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	

(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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) 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.

(4) 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.

DISCLAIMER