LEXAN™ LUX7189 resin

Polycarbonate

SABIC Innovative Plastics

Message:

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

General Information			
Additive	UV stabilizer Flame retardancy		
Features	Chlorine Free High reflectivity Good UV resistance Bromine-free Flame retardancy		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.30	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	22	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	23.0	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 - 0.70	%	Internal method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	2700	MPa	ASTM D638
--	2600	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	60.0	MPa	ASTM D638
Yield	5.50	MPa	ISO 527-2
Fracture [3]	52.0	MPa	ASTM D638
Fracture	50.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	6.0	%	ASTM D638
Yield	60	%	ISO 527-2/50
Fracture [5]	110	%	ASTM D638
Fracture	50	%	ISO 527-2/50
Flexural Modulus			
50.0mm span [6]	2700	MPa	ASTM D790

-- [7]	2300	MPa	ISO 178
Flexural Stress			
--	90.0	MPa	ISO 178
Yield, 50.0mm span [8]	98.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [9]			ISO 179/1eA
-30°C	11	kJ/m^2	ISO 179/1eA
23°C	35	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength [10]			ISO 179/1eU
-30°C	160	kJ/m^2	ISO 179/1eU
23°C	160	kJ/m^2	ISO 179/1eU
Notched Izod Impact			ASTM D256
-30°C	100	J/m	ASTM D256
23°C	150	J/m	ASTM D256
Unnotched Izod Impact (23°C)	2100	J/m	ASTM D4812
Instrumented Dart Impact (23°C, Energy at Peak Load)	59.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	135	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	125	°C	ASTM D648
1.8 MPa, annealed [11]	133	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	140	°C	ASTM D1525 [12]
--	138	°C	ISO 306/B50
--	139	°C	ISO 306/B120
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	6.5E-5	cm/cm/°C	ASTM E831
Flammability	**Nominal Value**		**Test Method**
Flame Rating			UL 94
1.50 mm	V-0		UL 94
2.50 mm	5VB		UL 94
3.00 mm	5VA		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	249 - 271	°C	
Middle Temperature	260 - 282	°C	

Front Temperature	271 - 293	°C
Nozzle Temperature	266 - 288	°C
Processing (Melt) Temp	271 - 293	°C
Mold Temperature	71.1 - 93.3	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.025 - 0.076	mm

NOTE	
1.	50 mm/min
2.	Type 1, 50mm/min
3.	Type 1, 50mm/min
4.	Type 1, 50mm/min
5.	Type 1, 50mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*3 sp=62mm
10.	80*10*3 sp=62mm
11.	2 hr, 120°C
12.	标准 B (120°C/h), 载荷2 (50N)

Recommended distributors for this material

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