LEXAN™ ML3290 resin

Polycarbonate

SABIC Innovative Plastics Europe

Message:

LEXAN ML3290 is a high viscosity flame retardant UV stabilized grade especially developed for the extrusion of complex sheet and profiles. LEXAN ML3290 is used in applications where a combination of impact resistance and light transmission is required such as factory glazing and roofs.

General Information			
UL YellowCard	E45329-236691		
Additive	UV Stabilizer		
Features	Flame Retardant Good UV Resistance High Viscosity		
Uses	Profiles Sheet		
RoHS Compliance	RoHS Compliant		
Processing Method	Profile Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.20	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/2.16 kg)	8.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow [1]	0.50 to 0.70	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.35	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	95.0	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2350	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	60.0	MPa	
Break	55.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	100	%	
Flexural Modulus [2]	2300	MPa	ISO 178
Flexural Stress	95.0	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	10.0	mg	Internal Method

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C [3]	13	kJ/m²	ISO 179/1eA
23°C [4]	70	kJ/m²	ISO 179/1eA
23°C	30	kJ/m²	ISO 179/2C
Charpy Unnotched Impact Strength [5]			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength [6]			ISO 180/1A
-30°C	12	kJ/m²	
23°C	65	kJ/m²	
Unnotched Izod Impact Strength [7]			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature [8]			
0.45 MPa, Unannealed, 100 mm Span	136	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	124	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	148	°C	ISO 306/A50
--	146	°C	ISO 306/B50
--	135	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE - Flow (23 to 80°C)	7.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.20	W/m/K	ISO 8302
RTI Elec	125	°C	UL 746
RTI Imp	80.0	°C	UL 746
RTI Str	125	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
0.800 mm, in Oil	35	kV/mm	
1.60 mm, in Oil	27	kV/mm	
3.20 mm, in Oil	17	kV/mm	
Relative Permittivity			IEC 60250
50 Hz	2.70		
60 Hz	2.70		
1 MHz	2.70		
Dissipation Factor			IEC 60250
50 Hz	1.0E-3		
60 Hz	1.0E-3		

1 MHz	0.010		
Comparative Tracking Index	225	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.50 mm	V-2		
2.00 mm	V-0		
Glow Wire Flammability Index			IEC 60695-2-12
1.00 mm	850	°C	
1.50 mm	960	°C	
Oxygen Index	25	%	ISO 4589-2
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.586		ISO 489
Transmittance (2540 µm)	88.0 to 90.0	%	ASTM D1003
Haze (2540 µm)	< 0.80	%	ASTM D1003
Extrusion	**Nominal Value**	**Unit**	
Drying Temperature	120	°C	
Drying Time	2.0 to 4.0	hr	
Hopper Temperature	100 to 120	°C	
Cylinder Zone 1 Temp.	240 to 280	°C	
Cylinder Zone 2 Temp.	260 to 290	°C	
Cylinder Zone 3 Temp.	260 to 290	°C	
Cylinder Zone 4 Temp.	260 to 290	°C	
Adapter Temperature	270 to 300	°C	
Melt Temperature	280 to 300	°C	
Die Temperature	260 to 290	°C	
Calibration Temp, First	80.0 to 100	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*3 sp=62mm		
4.	80*10*3 sp=62mm		
5.	80*10*3 sp=62mm		
6.	80*10*3		
7.	80*10*3		
8.	120*10*4 mm		

Recommended distributors for this material

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