LEXAN™ MPX1 resin

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

Lexan* MPX1 polycarbonate (PC) siloxane copolymer resin is a UV stabilized injection molding (IM) grade with release properties. This resin offers good low temperature ductility in combination with high flow characteristics and excellent processability with opportunities for shorter IM cycle times compared to standard IM PC resins. Lexan MPX1 resin is a general purpose product available in limited colors and may be an excellent candidate for a broad range of applications.

General Information			
Additive	UV Stabilizer		
Features	Copolymer Ductile General Purpose Good Mold Release Good Processability Good UV Resistance High Flow		
Uses	General Purpose		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.18	g/cm³	ASTM D792
--	1.19	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	17.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.40 to 0.80	%	
Across Flow : 3.20 mm	0.40 to 0.80	%	
Water Absorption			ISO 62
Saturation, 23°C	0.12	%	
Equilibrium, 23°C, 50% RH	0.090	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1]	2100	MPa	ASTM D638
Tensile Strength [2]			ASTM D638
Yield	57.0	MPa	
Break	56.0	MPa	
Tensile Elongation [3]			ASTM D638
Yield	4.8	%	

Break	90	%	
Flexural Modulus [4] (50.0 mm Span)	2100	MPa	ASTM D790
Flexural Strength [5] (Yield, 50.0 mm Span)	86.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-30°C	250	J/m	
23°C	750	J/m	
Instrumented Dart Impact (23°C, Total Energy)	70.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	116	°C	ASTM D648
Vicat Softening Temperature	139	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Flammability	**Nominal Value**		**Test Method**
Flame Rating (0.500 mm)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	271 to 293	°C	
Middle Temperature	282 to 304	°C	
Front Temperature	293 to 316	°C	
Nozzle Temperature	288 to 310	°C	
Processing (Melt) Temp	293 to 316	°C	
Mold Temperature	71.1 to 93.3	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	50 mm/min		
2.	Type I, 50 mm/min		
3.	Type I, 50 mm/min		
4.	1.3 mm/min		
5.	1.3 mm/min		

Recommended distributors for this material

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