LEXAN™ Copolymer ML6411 - Europe

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

LEXAN ML6411 polycarbonate (PC) siloxane resin, is a high flow opaque injection molding (IM) grade with very low temperature ductility characteristics. This grade offers UL94 V0 @ 1.5mm and 5VA @ 3.0mm flame retardancy based on non-chlorine, non-bromine FR systems. LEXAN ML6411 resin offers excellent processing characteristics with opportunity for shorter IM cycle times compared to standard PC. This product is available in a wide range of opaque colors and is an excellent candidate for a wide range of electrical applications.

UL Yellow Card Link E45329-100058759

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**18**	cm³/10min	ISO 1133
Temperature	**260**	°C	-
Load	**5**	kg	-
ASTM Data			
Melt Flow Index, MFI	**15**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2350**	MPa	ISO 527
Yield stress	**62**	MPa	ISO 527
Yield strain	**5**	%	ISO 527
Stress at break	**58**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**2350**	MPa	ISO 178
Izod notched impact strength, +23°C, 3mm	**60**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	**15**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2500**	MPa	ASTM D 638
Tensile Strength at Yield	**62**	MPa	ASTM D 638
Tensile Strength at Break	**54**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**100**	%	ASTM D 638
Flexural Modulus	**2600**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**900**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**150**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, B	**134**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**135**	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**1.7**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
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Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1**	mm	-
Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (2)	**2**	mm	-
Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-

ASTM Data			
DTUL @ 264 psi	**114**	°C	ASTM D 648
Vicat Temperature	**134**	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
Comparative tracking index	**250**	-	IEC 60112
ASTM Data			
Dielectric Strength, Short Time	**26.5**	kV/mm	ASTM D 149

Other properties	Value	Unit	Test Standard
Water absorption	**0.3**	%	Sim. to ISO 62
Humidity absorption	**0.1**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
Density	**1190**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**90 - 100**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**270 - 300**	°C	-
Mold temperature	**60 - 90**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**230 - 260**	°C	-
Zone 2	**250 - 290**	°C	-
Zone 3	**260 - 300**	°C	-

Characteristics

Processing
Injection Molding

Additives
Flame retarding agent

Special Characteristics
Flame retardant

Regional Availability
Europe