LEXAN™ Copolymer EXL9414 - Europe

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

LEXAN EXL9414 polycarbonate (PC) siloxane copolymer resin is a medium flow, non-chlorinated, non-brominated flame retardant opaque injection molding (IM) grade. This resin offers low temperature ductility, thin wall flame retardant capability, and in combination with excellent processability and release with opportunities for shorter IM cycle times compared to standard PC. LEXAN EXL9414 resin is a product available in wide range of opaque colors and may be an excellent candidate for a wide variety of applications, especially the housing of fast-charging mobile phones.

UL Yellow Card Link E207780-102896543

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**10**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**11.5**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2140**	MPa	ISO 527
Yield stress	**57**	MPa	ISO 527
Yield strain	**5.6**	%	ISO 527
Stress at break	**60**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**2180**	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**75**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**29**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	**69**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	**46**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2110**	MPa	ASTM D 638
Tensile Strength at Yield	**56**	MPa	ASTM D 638
Tensile Strength at Break	**62**	MPa	ASTM D 638
Elongation at Yield	**5.8**	%	ASTM D 638
Elongation at Break	**107**	%	ASTM D 638
Flexural Modulus	**2190**	MPa	ASTM D 790
Rockwell Hardness	**R 117**	-	ASTM D 785
Izod Impact notched, 1/8 in	**880**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**660**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, B	**136**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**138**	°C	ISO 306
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.5**	mm	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**1.5**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (3)	**1**	mm	-
ASTM Data			
DTUL @ 66 psi	**134**	°C	ASTM D 648
DTUL @ 264 psi	**118**	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Surface Resistivity	**>1E15**	Ohm	ASTM D 257
Volume Resistivity	**>1E15**	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Density	**1190**	kg/m³	ISO 1183
Density	**1190**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**295 - 315**	°C	-
Mold temperature	**70 - 95**	°C	-
Zone 1	**270 - 295**	°C	-
Zone 2	**280 - 305**	°C	-
Zone 3	**295 - 315**	°C	-
Screw speed	**40 - 70**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Additives
Flame retarding agent

Special Characteristics
Flame retardant

Regional Availability
Europe