LEXAN™ Copolymer EXL5429 - Europe

PC-GF | Saudi Basic Industries Corporation (SABIC)

Product Texts

Lexan* EXL5429 polycarbonate (PC) resin is a GF reinforced, UV stabilized, flame retardant injection molding copolymer blend. This medium flow resin features UL94 V0 @ 1.5mm flame retardancy based on non-chlorine, non-bromine FR agents with excellent processability and improved release performance. Available in limited opaque colors.

UL Yellow Card Link E45329-102888979

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**27**	cm³/10min	ISO 1133
Temperature	**330**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**11**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**3400**	MPa	ISO 527
Yield stress	**58**	MPa	ISO 527
Yield strain	**3.8**	%	ISO 527
Stress at break	**48**	MPa	ISO 527
Strain at break	**7**	%	ISO 527
Flexural modulus	**3300**	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	**90**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	**75**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**12**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**7**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**65**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	**10**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	**6**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**3400**	MPa	ASTM D 638
Tensile Strength at Yield	**57**	MPa	ASTM D 638
Tensile Strength at Break	**45**	MPa	ASTM D 638
Elongation at Yield	**4.1**	%	ASTM D 638
Elongation at Break	**7**	%	ASTM D 638
Flexural Modulus	**3300**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**100**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**65**	J/m	ASTM D 256
Temperature	**-30**	°C	-
Izod Impact unnotched, 1/8 in	**N**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, B	**153**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**155**	°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	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
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Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1**	mm	-
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-
ASTM Data			
Vicat Temperature	**153**	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
Comparative tracking index	**150**	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	**0.25**	%	Sim. to ISO 62
Humidity absorption	**0.1**	%	Sim. to ISO 62
Density	**1250**	kg/m³	ISO 1183
Density	**1270**	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	**310 - 330**	°C	-
Mold temperature	**80 - 115**	°C	-
Zone 1	**290 - 310**	°C	-
Zone 2	**300 - 320**	°C	-
Zone 3	**310 - 330**	°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