LNP™ ELCRIN™ CX7240B

(PC+ABS) Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP ELCRIN CX7240B Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is an injection moldable, medium flow, non chlorinated/brominated flame retardant grade with incorporation of renewable PC feedstock. It has a UL94 V0@0.75mm, 5VA@3.0mm and 5VB@1.5mm flame rating and contains around 48.3% renewable content. Renewable content certified by ISCC+ mass balance methodology. This grade has improved weld line strength and chemical resistance compared to standard PC/ABS blends and is a good candidate for thin wall applications. This grade also has good processability with opportunities for shorter injection molded cycle times compared to standard PC/ABS. ELCRIN CX7240B is a product available in wide range of opaque colors and is targeted for a variety of electronics applications such as mobile phones, tablets, audio equipment, gaming devices, thin wall industrial housings, and electric vehicle battery and energy storage equipment.

UL Yellow Card Link1: E207780-101674340
UL Yellow Card Link2: E207780-474277

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**15**	cm³/10min	ISO 1133
Temperature	**260**	°C	-
Load	**2.16**	kg	-
ASTM Data			
Melt Flow Index, MFI	**18**	g/10min	ASTM D 1238
Temperature	**260**	°C	-
Load	**2.16**	kg	-
Mold Shrinkage, MD	**0.005**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Yield stress	**65**	MPa	ISO 527
Yield strain	**4**	%	ISO 527
Stress at break	**50**	MPa	ISO 527
Strain at break	**90**	%	ISO 527
Flexural strength	**96**	MPa	ISO 178
Charpy notched impact strength, +23°C	**22**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, +23°C, 3mm	**20**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**10**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**20**	kJ/m²	ISO 180/1A
Izod notched impact strength	**10**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**2600**	MPa	ASTM D 638
Tensile Strength at Yield	**65**	MPa	ASTM D 638
Elongation at Yield	**4.1**	%	ASTM D 638
Elongation at Break	**100**	%	ASTM D 638
Flexural Modulus	**2500**	MPa	ASTM D 790
Flexural Strength	**104**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**700**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**175**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**93**	°C	ISO 75-1/-2
Vicat softening temperature, B	**110**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**75**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**75**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.4**	mm	-
Yellow Card available	**yes**	-	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**1.5**	mm	-
Yellow Card available	**yes**	-	-

Oxygen index	**34**	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (1)	**0.75**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (2)	**1.5**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested (3)	**2**	mm	-
Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**0.75**	mm	-
Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (2)	**1.5**	mm	-
Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**2**	mm	-
ASTM Data			
UL 94 Flame rating	**V-0**	-	UL 94
Thickness tested	**0.75**	mm	-
Coefficient of Thermal Expansion, MD	**75**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**75**	E-6/K	ASTM D 696
DTUL @ 66 psi	**100**	°C	ASTM D 648
DTUL @ 264 psi	**89**	°C	ASTM D 648
Vicat Temperature	**110**	°C	ASTM D 1525
Other Standards[S]			
Thermal Conductivity, solid state	**0.2**	W/(m K)	ISO 8302

S: These properties are reported by the producer according standards that are different to our defaults.

Other properties	**Value**	**Unit**	**Test Standard**
Water absorption	**0.2**	%	Sim. to ISO 62
Humidity absorption	**0.1**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
Biobased content	**48.3**	%	-
Density	**1190**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**80 - 90**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**250 - 300**	°C	-
Mold temperature	**60 - 85**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**230 - 280**	°C	-
Zone 2	**240 - 290**	°C	-
Zone 3	**250 - 300**	°C	-
Nozzle temperature	**250 - 300**	°C	-

Characteristics

Processing
Injection Molding, Additive Manufacturing

Special Characteristics
Flame retardant, Halogen-free, Opaque

Chemical Resistance
General Chemical Resistance

Certifications
Contains renewable resources, ISCC Plus

Applications
Aircraft and Aerospace, IT / Business Machine, Electrical and Electronical, Medical, Sports Equipment

Regional Availability
North America, Europe, Asia Pacific, South and Central America