

LEXANTM FR RESIN BX7241

REGION ASIA

DESCRIPTION

LEXAN BX7241 Polycarbonate (PC) is an injection moldable non-chlorinated/brominated, unfilled flame retardant grade that has good impact and processability. It has an MVR of 18 (300°C/1.2kg), UL94 V0@0.6mm, 5VA at 3.0mm rating and can be ideal for thin wall applications.

TYPICAL PROPERTY VALUES

Revision 20191031

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	67	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	65	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	100	%	ASTM D 638
Tensile Modulus, 5 mm/min	2500	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	107	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	105	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2450	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	62	MPa	ISO 527
Tensile Stress, break, 50 mm/min	45	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.2	%	ISO 527
Tensile Strain, break, 50 mm/min	90	%	ISO 527
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	99	MPa	ISO 178
Flexural Stress, break, 2 mm/min	98	MPa	ISO 178
Flexural Modulus, 2 mm/min	2600	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	690	J/m	ASTM D 256
Izod Impact, notched, 0°C	420	J/m	ASTM D 256
Izod Impact, notched, -30°C	190	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	60	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	28	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	11	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	11	kJ/m ²	ISO 180/1A
Charpy Impact, notched, 23°C, 80*10*4mm, Cut	37	kJ/m ²	ISO 179/1eA
Charpy Impact, notched, 0°C, 80*10*4mm, Cut	12	kJ/m ²	ISO 179/1eA
Charpy Impact, notched, -30°C, 80*10*4mm, Cut	11	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	111	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	103	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	93	°C	ASTM D 648
CTE, -40°C to 40°C, flow	5.9E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.9E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.9E-05	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	5.9E-05	1 / °C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	Pass	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	109	°C	ISO 306
Vicat Softening Temp, Rate B/120	112	°C	ISO 306
Relative Temp Index, Elec ⁽¹⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽¹⁾	80	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽¹⁾	80	°C	UL 746B
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	18	g/10 min	ASTM D 1238
Water Absorption, (23°C/sat)	0.2	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Melt Volume Rate, MVR at 260°C/2.16 kg	18	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+16	Ohm-cm	ASTM D 257
Surface Resistivity	>2.E+15	Ohm	ASTM D 257
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E207780-102078504	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.5	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥0.5	mm	UL 94
UL Recognized, 94V-2 Flame Class Rating	≥0.2	mm	UL 94
Glow Wire Flammability Index 960°C, passes at ⁽²⁾	0.75	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm ⁽²⁾	800	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm ⁽²⁾	825	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm ⁽²⁾	825	°C	IEC 60695-2-13
INJECTION MOLDING			
Drying Temperature	80 – 90	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 300	°C	
Nozzle Temperature	250 – 300	°C	
Front - Zone 3 Temperature	250 – 300	°C	
Middle - Zone 2 Temperature	240 – 290	°C	
Rear - Zone 1 Temperature	230 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	60 – 85	°C	
Vent Depth	0.03 - 0.075	mm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(2) Value shown here is based on internal measurement.



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