



LEXAN™ Resin BX7241

Asia Pacific: COMMERCIAL

Lexan® BX7241 resin is an injection moldable PC blend with non-brominated and non-chlorinated flame retardant systems. Thin wall FR together with excellent impact/flow balance makes it ideal for thin wall applications.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	680	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	660	kgf/cm ²	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	25400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1090	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1070	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	24900	kgf/cm ²	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	70	cm-kgf/cm	ASTM D 256
Izod Impact, notched, 0°C	42	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	19	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	611	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	28	kJ/m ²	ISO 180/1A



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IMPACT			
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
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	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	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



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
PHYSICAL			
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
Hot Wire Ignition {PLC}	4	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94V-2 Flame Class Rating (3)	0.2	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating (3)	0.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	0.6	mm	UL 94
UL Recognized, 94-5VA Rating (3)	3	mm	UL 94
UL Recognized, 94-5VB Rating (3)	1.5	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	0.75	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	800	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm	825	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	825	°C	IEC 60695-2-13



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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