

Product Texts

LEXAN CFR7431 Polycarbonate (PC) resin is a non-filled, injection moldable grade. This non-chlorinated, non-brominated flame retardant PC has an UL-94 V0 rating at 1.2 mm / 5VA rating at 3.0mm and is UV stabilized(F1 rating) providing additional weathering capability. LEXAN CFR7431 is available in clear transparent and tinted color options that is an excellent candidate for a wide variety of applications.

UL Yellow Card Link [E121562-100922880](https://www.ul.com/yellow-card/E121562-100922880)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	9	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	10	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2350	MPa	ISO 527
Yield stress	66	MPa	ISO 527
Yield strain	6	%	ISO 527
Stress at break	53	MPa	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	2450	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	7	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	9	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	8	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2520	MPa	ASTM D 638
Tensile Strength at Yield	67	MPa	ASTM D 638
Tensile Strength at Break	55	MPa	ASTM D 638
Elongation at Yield	6	%	ASTM D 638
Elongation at Break	55	%	ASTM D 638
Flexural Modulus	2450	MPa	ASTM D 790
Izod Impact notched, 1/8 in	100	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	81	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	137	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	139	°C	ISO 306
Burning behav. at thickness h	V-2	class	IEC 60695-11-10
Thickness tested	0.4	mm	-
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3.0	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	850	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
ASTM Data			
DTUL @ 66 psi	131	°C	ASTM D 648
DTUL @ 264 psi	120	°C	ASTM D 648
Vicat Temperature	136	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	0.13	%	Sim. to ISO 62
Humidity absorption	0.1	%	Sim. to ISO 62
Density	1200	kg/m ³	ISO 1183
Density	1190	kg/m ³	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	280 - 305	°C	-
Mold temperature	70 - 95	°C	-
Zone 1	260 - 280	°C	-
Zone 2	270 - 295	°C	-
Zone 3	280 - 305	°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, Transparent

Applications

Automotive

Regional Availability

North America