LEXAN™ Copolymer CFR9712 - Americas

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

LEXAN CFR9712 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 2.0 mm and high flow capability. LEXAN CFR9712 is available in clear transparent and tinted color options that is an excellent candidate for a wide variety of applications.

UL Yellow Card Link E121562-100919711

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**29**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**30**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2200**	MPa	ISO 527
Yield stress	**63**	MPa	ISO 527
Yield strain	**6**	%	ISO 527
Stress at break	**56**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**2400**	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**30**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**10**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	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	**10**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2450**	MPa	ASTM D 638
Tensile Strength at Yield	**66**	MPa	ASTM D 638
Tensile Strength at Break	**51**	MPa	ASTM D 638
Elongation at Yield	**6**	%	ASTM D 638
Elongation at Break	**55**	%	ASTM D 638
Flexural Modulus	**2370**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**100**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**90**	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	**138**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**140**	°C	ISO 306
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.4**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
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 (2)	**2**	mm	-
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-
ASTM Data			
DTUL @ 66 psi	**130**	°C	ASTM D 648
DTUL @ 264 psi	**120**	°C	ASTM D 648
Vicat Temperature	**136**	°C	ASTM D 1525

Copyright Altair Engineering GmbH. Altair Engineering GmbH assumes no liability for the system to be free of errors. The user takes sole responsibility for the use of this data under the exclusion of every liability from Altair Engineering GmbH; this is especially valid for claims of compensation resulting from consequential damages. Altair explicitly points out that any decision about the application of materials must be double checked with the producer of this material. This includes all contents of this system. Copyright laws are applicable for the content of this system.

Other properties	Value	Unit	Test Standard
Water absorption	**0.14**	%	Sim. to ISO 62
Humidity absorption	**0.11**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
Density	**1190**	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	**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

Special Characteristics
Flame retardant, Transparent

Additives
Flame retarding agent

Regional Availability
North America

Copyright Altair Engineering GmbH. Altair Engineering GmbH assumes no liability for the system to be free of errors. The user takes sole responsibility for the use of this data under the exclusion of every liability from Altair Engineering GmbH; this is especially valid for claims of compensation resulting from consequential damages. Altair explicitly points out that any decision about the application of materials must be double checked with the producer of this material. This includes all contents of this system. Copyright laws are applicable for the content of this system.