

# LEXAN™ COPOLYMER CXT19

REGION AMERICAS

## DESCRIPTION

LEXAN™ CXT19 Resin is a High Heat Polycarbonate Copolymer Resin with Vicat of 190°C and crystal clear transparency. This resin is optimized to have a broad processing window with limited yellowing. It is available in limited transparent colors.

## TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yld, Type I, 50 mm/min	80	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	65	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	7.5	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	>25	%	ASTM D638
Tensile Modulus, 5 mm/min	2600	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	120	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2600	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	80	MPa	ISO 527
Tensile Stress, break, 50 mm/min	65	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	7	%	ISO 527
Tensile Strain, break, 50 mm/min	>25	%	ISO 527
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	120	MPa	ISO 178
Flexural Modulus, 2 mm/min	2550	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched, 23°C	80	J/m	ASTM D256
Izod Impact, notched, -30°C	70	J/m	ASTM D256
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	8	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	6	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	9	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	7	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m <sup>2</sup>	ISO 179/1eU
<b>THERMAL <sup>(1)</sup></b>			
Tg (half width)	195	°C	SABIC method
Vicat Softening Temp, Rate B/ 120	190	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	185	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	170	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.00E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.00E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/ 120	190	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	170	°C	ISO 75/Af
Thermal Conductivity	0.2	W/m·°C	ISO 8302

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>PHYSICAL <sup>(1)</sup></b>			
Mold Shrinkage, flow, 3.2 mm <sup>(2)</sup>	0.7 – 1.0	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm <sup>(2)</sup>	0.7 – 1.0	%	SABIC method
Specific Gravity	1.22	-	ASTM D792
Melt Flow Rate, 330°C/2.16 kgf	17	g/10 min	ASTM D1238
Melt Flow Rate, 350°C/2.16 kgf	33	g/10 min	ASTM D1238
Density	1.22	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/saturated)	0.5	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62
Melt Volume Rate, MVR at 330°C/2.16kg	15	cm <sup>3</sup> /10 min	ISO 1133
Melt Volume Rate, MVR at 350°C/2.16kg	30	cm <sup>3</sup> /10 min	ISO 1133
<b>OPTICAL <sup>(1)</sup></b>			
Refractive Index	1.609	-	ISO 489
Abbe number	30	-	ISO 489
Light Transmission, 1.0 mm	89	%	ASTM D1003
Light Transmission at 2.0 mm	88	%	ASTM D1003
Light Transmission at 3.0 mm	87	%	ASTM D1003
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	135	°C	
Drying Time	5 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	310 – 315	°C	
Nozzle Temperature	305 – 345	°C	
Front - Zone 3 Temperature	310 – 350	°C	
Middle - Zone 2 Temperature	300 – 340	°C	
Rear - Zone 1 Temperature	280 – 330	°C	
Mold Temperature	120 – 170	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article. The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

## MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>



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