

LEXAN™ COPOLYMER CXT17EX

REGION AMERICAS

DESCRIPTION

LEXAN™ CXT17EX resin is a High Heat Polycarbonate Copolymer Resin with Vicat of 170°C and crystal clear transparency. This resin is optimized for sheet and film extrusion applications, has a low plateout and a broad processing window with limited yellowing. It is available in limited transparent colors.

TYPICAL PROPERTY VALUES

Revision 20171127

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	75	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	60	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	7	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	>40	%	ASTM D 638
Tensile Modulus, 5 mm/min	2500	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	120	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2450	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	75	MPa	ISO 527
Tensile Stress, break, 50 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6.5	%	ISO 527
Tensile Strain, break, 50 mm/min	>50	%	ISO 527
Tensile Modulus, 1 mm/min	2450	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	110	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	80	J/m	ASTM D 256
Izod Impact, notched, -30°C	75	J/m	ASTM D 256
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	8	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	7	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	10	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	7	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m ²	ISO 179/1eU
THERMAL			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Tg (half width)	175	°C	SABIC method
Vicat Softening Temp, Rate B/120	174	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	167	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	154	°C	ASTM D 648
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	174	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	167	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	154	°C	ISO 75/Af
Thermal Conductivity	0.2	W/m-°C	ISO 8302
PHYSICAL			
Mold Shrinkage, flow, 3.2 mm (5)	0.7 – 0.95	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm (5)	0.7 – 0.95	%	SABIC method
Specific Gravity	1.21	-	ASTM D 792
Melt Flow Rate, 330°C/2.16 kgf	30	g/10 min	ASTM D 1238
Density	1.21	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.3	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62
Melt Volume Rate, MVR at 330°C/2.16kg	27	cm ³ /10 min	ISO 1133
OPTICAL			
Refractive Index	1.602	-	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
MULTIWALL SHEET EXTRUSION			
Drying Temperature	135	°C	
Drying Time	4 – 6	hrs	
Barrel - Zone 1 Temperature	160 – 230	°C	
Barrel - Zone 2 Temperature	250 – 290	°C	
Barrel - Zone 3 Temperature	280 – 345	°C	
Hopper Temperature	40 – 60	°C	
Adapter Temperature	80 – 130	°C	
Die Temperature	270 – 350	°C	
Melt Temperature	270 – 350	°C	
Calibrator Temperature	90 – 150	°C	



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