

LEXAN™ COPOLYMER CXT19UV

REGION EUROPE

DESCRIPTION

LEXAN™ CXT19UV Resin is an UV-stabilized 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 20171122

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	80	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	65	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	7.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	>25	%	ASTM D 638
Tensile Modulus, 5 mm/min	2600	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	2600	MPa	ASTM D 790
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
IMPACT			
Izod Impact, notched, 23°C	80	J/m	ASTM D 256
Izod Impact, notched, -30°C	70	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	6	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	9	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)	195	°C	SABIC method
Vicat Softening Temp, Rate B/120	190	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	185	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	170	°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	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
PHYSICAL			
Mold Shrinkage, flow, 3.2 mm (5)	0.7 – 1.0	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm (5)	0.7 – 1.0	%	SABIC method
Specific Gravity	1.22	-	ASTM D 792
Melt Flow Rate, 330°C/2.16 kgf	17	g/10 min	ASTM D 1238
Melt Flow Rate, 350°C/2.16 kgf	33	g/10 min	ASTM D 1238
Density	1.22	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.5	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62
Melt Volume Rate, MVR at 330°C/2.16kg	15	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 350°C/2.16kg	30	cm ³ /10 min	ISO 1133
OPTICAL			
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
INJECTION MOLDING			
Drying Temperature	135	°C	
Drying Time	5 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	310 – 350	°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	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.075	mm	

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