

LEXANTM COPOLYMER CXT17UV

REGION EUROPE

DESCRIPTION

LEXANTM CXT17UV Resin is an UV-stabilized High Heat Polycarbonate Copolymer Resin with Vicat of 170°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

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 D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2450	MPa	ASTM D790
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			
Tg (half width)	175	°C	SABIC method
Vicat Softening Temp, Rate B/120	172	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	165	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	152	°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	172	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	165	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	152	°C	ISO 75/Af
Thermal Conductivity	0.2	W/m·°C	ISO 8302

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Mold Shrinkage, flow, 3.2 mm	0.7 – 0.95	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.7 – 0.95	%	SABIC method
Specific Gravity	1.21	-	ASTM D 792
Melt Flow Rate, 330°C/2.16 kgf	33	g/10 min	ASTM D 1238
Melt Flow Rate, 350°C/2.16 kgf	60	g/10 min	ASTM D 1238
Density	1.21	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.3	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62
Melt Volume Rate, MVR at 330°C/2.16kg	30	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 350°C/2.16kg	55	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
INJECTION MOLDING			
Drying Temperature	135	°C	
Drying Time	4 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 350	°C	
Nozzle Temperature	285 – 345	°C	
Front - Zone 3 Temperature	290 – 350	°C	
Middle - Zone 2 Temperature	280 – 340	°C	
Rear - Zone 1 Temperature	270 – 330	°C	
Mold Temperature	110 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 90	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.08	mm	