

LEXANTM RESIN ML7647K

REGION ASIA

DESCRIPTION

Non FR Impact modified PC, excellent Fatigue performance with balanced Flow and impact. Available in Opaque only

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	52	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	54	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	100	%	ASTM D 638
Tensile Modulus, 50 mm/min	2180	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	87	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2130	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	52	MPa	ISO 527
Tensile Stress, break, 50 mm/min	50	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.3	%	ISO 527
Tensile Strain, break, 50 mm/min	94	%	ISO 527
Tensile Modulus, 1 mm/min	2150	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	86	MPa	ISO 178
Flexural Modulus, 2 mm/min	2160	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	770	J/m	ASTM D 256
Izod Impact, notched, -30°C	720	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	69	J	ASTM D 3763
Izod Impact, notched 80°10'4 +23°C	57	kJ/m ²	ISO 180/1A
Izod Impact, notched 80°10'4 -30°C	45	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10'4 sp=62mm	60	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	138	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	118	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.94E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.09E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.48E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	138	°C	ISO 306
Vicat Softening Temp, Rate B/120	138	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80°10'4 sp=64mm	119	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.19	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Flow Rate, 300°C/ 1.2 kgf	12	g/ 10 min	ASTM D 1238
Density	1.19	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.26	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 300°C/ 1.2 kg	11	cm ³ / 10 min	ISO 1133
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	48	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	295 – 315	°C	
Nozzle Temperature	290 – 310	°C	
Front - Zone 3 Temperature	295 – 315	°C	
Middle - Zone 2 Temperature	280 – 305	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Mold Temperature	70 – 95	°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	

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