

LNPTM THERMOCOMPTM COMPOUND NX10302

DESCRIPTION

This is a PC/ABS compound with improved plating, surface and mechanical performance, a good candidate for Laser Direct Structuring applications.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	46	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	100	%	ASTM D 638
Tensile Modulus, 50 mm/min	2480	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	80	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	79	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2400	MPa	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D 4812
Izod Impact, notched, 23°C	600	J/m	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	108	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.47E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.1E-05	1/°C	ASTM E 831
Relative Temp Index, Elec ⁽¹⁾	60	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽¹⁾	60	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽¹⁾	60	°C	UL 746B
PHYSICAL			
Density	1.26	g/cm ³	ASTM D 792
Water Absorption, 24 hours	0.01	%	ASTM D 570
Moisture Absorption, 50% RH, 24 hrs	0.02	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.6 – 0.65	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.5 – 0.56	%	ASTM D 955
Melt Volume Rate, MVR at 260°C/5.0 kg	14	cm ³ /10 min	ISO 1133
ELECTRICAL			
Relative Permittivity, 1 GHz	2.74	-	IEC 60250
Dissipation Factor, 1 GHz	0.003	-	IEC 60250
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E207780-101343771	-	-
UL Recognized, 94HB Flame Class Rating	0.6	mm	UL 94
INJECTION MOLDING			
Drying Temperature	85 – 100	°C	
Drying Time	6 – 8	hrs	
Melt Temperature	250 – 290	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Nozzle Temperature	250 – 290	°C	
Front - Zone 3 Temperature	250 – 280	°C	
Middle - Zone 2 Temperature	250 – 270	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Mold Temperature	60 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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