

LNP™ THERMOCOMP™ COMPOUND DX11354X

REGION ASIA

DESCRIPTION

LNP THERMOCOMP Compound DX11354X is a colorable PC based compound with stable plating and RF performance, colored LDS material solution, good surface and processing window, high impact strength. It is a general purpose product available in internal and external parts for Laser Direct Structuring applications.

TYPICAL PROPERTY VALUES

Revision 20170913

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	55	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	45	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	70	%	ASTM D 638
Tensile Modulus, 50 mm/min	2400	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	86	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2380	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	54	MPa	ISO 527
Tensile Stress, break, 50 mm/min	51	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	84	%	ISO 527
Tensile Modulus, 1 mm/min	2320	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	86	MPa	ISO 178
Flexural Modulus, 2 mm/min	2450	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	700	J/m	ASTM D 256
Izod Impact, notched 80*10*3 +23°C	60	kJ/m ²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate A/50	136	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	121	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.1E-05	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	136	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	117	°C	ISO 75/Af

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Mold Shrinkage, flow, 24 hrs (5)	0.5 – 0.7	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.5 – 0.7	%	ISO 294
Density	1.28	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	20	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	1.E+16	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+16	Ohm	ASTM D 257
Relative Permittivity, 1 GHz	3.03	-	ASTM D 150
Dissipation Factor, 1 GHz	0.0066	-	ASTM D 150
INJECTION MOLDING			
Drying Temperature	110 – 120	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 280	°C	
Nozzle Temperature	255 – 275	°C	
Front - Zone 3 Temperature	260 – 280	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	245 – 265	°C	
Hopper Temperature	40 – 60	°C	
Mold Temperature	80 – 140	°C	

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