



LNP™ THERMOCOMP™ Compound DX11354X

Asia Pacific: COMMERCIAL

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 PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	560	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	450	kgf/cm ²	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	24400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	870	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	24200	kgf/cm ²	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	71	cm-kgf/cm	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



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THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	117	°C	ISO 75/Af
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



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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