LNP™ THERMOCOMP™ COMPOUND DX13354X

REGION ASIA

DESCRIPTION

LNP* Thermocomp* compound DX13354X is a colorable, glass fiber reinforced Polycarbonate resin based LDS material solution with stable plating and RF performance, providing excellent stiffness with good surface and good impact strength. The product is available for internal and external parts for Laser Direct Structuring applications.

TYPICAL PROPERTY VALUES

Revision 20170913

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	90	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.2	%	ASTM D 638
Tensile Modulus, 5 mm/min	6900	MPa	ASTM D 638
Flexural Stress	130	MPa	ASTM D 790
Tensile Stress, break, 50 mm/min	90	MPa	ISO 527
Tensile Strain, break, 50 mm/min	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	6600	MPa	ISO 527
Flexural Stress	130	MPa	ISO 178
Flexural Modulus	6400	MPa	ISO 178
IMPACT			
Charpy Impact, unnotched, 23°C	36	kJ/m²	ISO 179/2C
Izod Impact, unnotched, 23°C	500	J/m	ASTM D 4812
Izod Impact, notched, 23°C	90	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
Charpy Impact, notched, 23°C	9	kJ/m²	ISO 179/2C
THERMAL			
HDT, 0.45 MPa, 3.2 mm	124	°C	ASTM D 648
HDT, 1.82 MPa, 3.2 mm	120	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.3E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.1E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	126	°C	ISO 75/Bf

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	122	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.43	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm (5)	0.3 – 0.5	%	SABIC method
Melt Flow Rate, 280°C/2.16 kgf	12	g/10 min	ASTM D 1238
Melt Flow Rate, 300°C/1.2 kgf	16	g/10 min	ASTM D 1238
Melt Volume Rate, MVR at 300°C/1.2 kg	13	cm³/10 min	ASTM D 1238
Density	1.43	g/cm³	ISO 1183
ELECTRICAL			
Dielectric Constant, 1.1 GHz	3.47	-	SABIC method
Dielectric Constant, 1.9 GHz	3.45	-	SABIC method
Dielectric Constant, 5 GHz	3.45	-	SABIC method
Dissipation Factor, 1.1 GHz	0.013	-	SABIC method
Dissipation Factor, 1.9 GHz	0.012	-	SABIC method
Dissipation Factor, 5 GHz	0.011	-	SABIC method
MECHANICAL PROPERTIES			
Flexural modulus	6300	MPa	ISO 178/1A
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	3 – 4	hrs	
Melt Temperature	270 – 295	°C	
Nozzle Temperature	270 – 295	°C	
Front - Zone 3 Temperature	270 – 295	°C	
Middle - Zone 2 Temperature	270 – 295	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Mold Temperature	100 – 120	°C	

DISCLAIMER