LNP™ THERMOCOMP™ COMPOUND DX13354

DESCRIPTION

LNP* Thermocomp* DX13354 compound is a 30% glass fiber reinforced, impact modified PC resin based LDS material solution with stable plating and RF performance. Good surface aesthetics and wide processing window makes it a good candidate for internal and external parts for Laser Direct Structuring applications.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	120	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	8760	MPa	ASTM D 638
Flexural Stress	170	MPa	ASTM D 790
Flexural Modulus	8020	MPa	ASTM D 790
Tensile Stress, break, 50 mm/min	120	MPa	ISO 527
Tensile Strain, break, 50 mm/min	2.4	%	ISO 527
Tensile Modulus, 1 mm/min	8840	MPa	ISO 527
Flexural Stress	180	MPa	ISO 178
Flexural Modulus	8450	MPa	ISO 178
IMPACT			
Charpy Impact, unnotched, 23°C	50	kJ/m²	ISO 179/2C
Izod Impact, unnotched, 23°C	700	J/m	ASTM D 4812
Izod Impact, notched, 23°C	150	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	40	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m²	ISO 180/1A
Charpy Impact, notched, 23°C	14	kJ/m²	ISO 179/2C
THERMAL			
HDT, 0.45 MPa, 3.2 mm	126	°C	ASTM D 648
HDT, 1.82 MPa, 3.2 mm	122	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.1E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.9E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.1E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.1E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	127	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	124	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.47	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.05 – 0.1	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.2 – 0.4	%	SABIC method
Melt Flow Rate, 280°C/2.16 kgf	10	g/10 min	ASTM D 1238
Melt Flow Rate, 280°C/5.0 kgf	27	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

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ELECTRICAL			
Dielectric Constant, 1.1 GHz	3.52	-	SABIC method
Dielectric Constant, 1.9 GHz	3.44	-	SABIC method
Dielectric Constant, 5 GHz	3.51	-	SABIC method
Dissipation Factor, 1.1 GHz	0.014	-	SABIC method
Dissipation Factor, 1.9 GHz	0.013	-	SABIC method
Dissipation Factor, 5 GHz	0.012	-	SABIC method
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	

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