

LNP™ THERMOCOMP™ DX13354 compound

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

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.

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Impact Modifier		
Features	Impact Modified		
	Pleasing Surface Appearance		
Uses	Laser Direct Structuring		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.47	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
280°C/2.16 kg	10	g/10 min	
280°C/5.0 kg	27	g/10 min	
300°C/1.2 kg	16	g/10 min	
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	13.0	cm ³ /10min	ASTM D1238
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.050 to 0.10	%	
Across Flow : 3.20 mm	0.20 to 0.40	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	8760	MPa	ASTM D638
--	8840	MPa	ISO 527-2/1
Tensile Strength			
Break ²	120	MPa	ASTM D638
Break	120	MPa	ISO 527-2/50
Tensile Elongation			
Break ³	2.4	%	ASTM D638
Break	2.4	%	ISO 527-2/50
Flexural Modulus			
--	8020	MPa	ASTM D790
--	8450	MPa	ISO 178
Flexural Strength			

--	170	MPa	ASTM D790
--	180	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	14	kJ/m ²	ISO 179/2C
Charpy Unnotched Impact Strength (23°C)	50	kJ/m ²	ISO 179/2U
Notched Izod Impact			
23°C	150	J/m	ASTM D256
23°C ⁴	14	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	700	J/m	ASTM D4812
23°C ⁵	40	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	126	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁶	127	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	122	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁷	124	°C	ISO 75-2/Af
CLTE			
Flow : -40 to 40°C	2.1E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Transverse : -40 to 40°C	6.9E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	7.1E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value		Test Method
Dielectric Constant			Internal Method
1.10 GHz	3.52		
1.90 GHz	3.44		
5.00 GHz	3.51		
Dissipation Factor			Internal Method
1.10 GHz	0.014		
1.90 GHz	0.013		
5.00 GHz	0.012		
Injection	Nominal Value	Unit	
Drying Temperature	110	°C	
Drying Time	3.0 to 4.0	hr	
Rear Temperature	270 to 295	°C	
Middle Temperature	270 to 295	°C	
Front Temperature	270 to 295	°C	
Nozzle Temperature	270 to 295	°C	
Processing (Melt) Temp	270 to 295	°C	
Mold Temperature	100 to 120	°C	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		

3.	Type I, 5.0 mm/min
4.	80*10*4
5.	80*10*4
6.	80*10*4 mm
7.	80*10*4 mm

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