LNP™ THERMOCOMP™ DX14354X compound

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

LNP Thermocomp compound DX14354X is an improved flow, colorable compound based on PC copolymer resin developed for applications that require Laser Direct Structuring (LDS) for antenna, or electronic circuit manufacturing. Thermocomp compound DX14354X helps customers to improve productivity with stable plating and RF performance, excellent impact strength and surface finish.

General Information			
UL YellowCard	E207780-102180157		
Features	Copolymer Good Colorability Good Surface Finish High Impact Resistance		
Uses	Electrical/Electronic Applications Laser Direct Structuring		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.29	g/cm³	ASTM D792
Melt Volume-Flow Rate (MVR)			ISO 1133
260°C/5.0 kg	25.0	cm³/10min	
280°C/2.16 kg	27.0	cm³/10min	
280°C/21.6 kg	22.0	cm³/10min	
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.50 to 0.70	%	
Across Flow : 24 hr	0.50 to 0.70	%	
Water Absorption (Equilibrium, 23°C, 50% RH)	0.050	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	2500	MPa	ASTM D638
--	2460	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	54.0	MPa	ASTM D638
Yield	54.0	MPa	ISO 527-2/50
Break [3]	49.0	MPa	ASTM D638
Break	47.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	5.0	%	ASTM D638

Yield	5.0	%	ISO 527-2/50
Break [5]	70	%	ASTM D638
Break	80	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [6]	2500	MPa	ASTM D790
-- [7]	2560	MPa	ISO 178
Flexural Stress			
--	86.0	MPa	ISO 178
Yield, 50.0 mm Span [8]	85.0	MPa	ASTM D790
Break, 50.0 mm Span [9]	83.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	750	J/m	ASTM D256
23°C [10]	60	kJ/m^2	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	111	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [11]	113	°C	ISO 75-2/Af
Vicat Softening Temperature	128	°C	ASTM D1525 [12]
CLTE			ASTM E831
Flow : -40 to 40°C	5.7E-5	cm/cm/°C	
Transverse : -40 to 40°C	6.0E-5	cm/cm/°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.2E+16	ohms	ASTM D257
Volume Resistivity	1.2E+16	ohms·cm	ASTM D257
Dielectric Constant			
1.00 GHz	3.10		ASTM D150
1.10 GHz	3.06		Internal Method
1.90 GHz	3.08		Internal Method
5.00 GHz	3.08		Internal Method
Dissipation Factor			
1.00 GHz	6.0E-3		ASTM D150
1.10 GHz	6.3E-3		Internal Method
1.90 GHz	6.1E-3		Internal Method
5.00 GHz	5.9E-3		Internal Method
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.00 mm)	V-1		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	110 to 120	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40.0 to 60.0	°C	

Rear Temperature	230 to 245	°C
Middle Temperature	240 to 255	°C
Front Temperature	245 to 265	°C
Nozzle Temperature	240 to 260	°C
Processing (Melt) Temp	250 to 270	°C
Mold Temperature	40.0 to 100	°C

NOTE	
1.	50 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	1.3 mm/min
10.	80*10*3
11.	80*10*4 mm
12.	Rate A (50°C/h), Loading 2 (50 N)

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

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