LNP™ THERMOCOMP™ COMPOUND DX15354

DESCRIPTION

LNP THERMOCOMP DX15354 compound is based on Polycarbonate (PC) resin containing proprietary fillers and available in black color only. Added features of this grade include: Improved Plating Surface and Mechanical Performance targeted for Laser Direct Structuring (LDS) applications, Improved Heat Resistance.

GENERAL INFORMATION	
Features	Dielectrics, Laser Direct Structuring, High temperature resistance, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	59	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	11	%	ASTM D638
Tensile Modulus, 5 mm/min	2920	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	111	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2890	MPa	ASTM D790
Tensile Stress, break, 50 mm/min	58	MPa	ISO 527
Tensile Strain, break, 50 mm/min	11	%	ISO 527
Tensile Modulus, 1 mm/min	2940	MPa	ISO 527
Flexural Strength, 2 mm/min	112	MPa	ISO 178
Flexural Modulus, 2 mm/min	2880	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	2160	J/m	ASTM D4812
Izod Impact, notched, 23°C	61	J/m	ASTM D256
Izod Impact, unnotched 80*10*3 +23°C	182	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	7	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	168	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	155	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.3E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.7E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL [1]			
Density	1.29	g/cm³	ASTM D792
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62
Melt Volume Rate, MVR at 330°C/1.2 kg	22.8	cm³/10 min	ISO 1133
ELECTRICAL [1]			
Dielectric Constant, 1.1 GHz	2.95	-	SABIC method
Dissipation Factor, 1.1 GHz	0.006	-	SABIC method
INJECTION MOLDING [2]			
Drying Temperature	135	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	300 – 345	°C	
Nozzle Temperature	295 – 340	°C	
Front - Zone 3 Temperature	300 – 345	°C	
Middle - Zone 2 Temperature	290 – 335	°C	
Rear - Zone 1 Temperature	280 – 315	°C	
Mold Temperature	95 – 130	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 90	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.08	mm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

DISCLAIMER