

LNPTTM THERMOCOMPTM COMPOUND DX13354

DESCRIPTION

LNP THERMOCOMP DX13354 compound is based on Polycarbonate (PC) resin containing 30% glass fiber. Added features of this grade include: Improved Plating Surface and Mechanical Performance targeted for Laser Direct Structuring (LDS) applications, Improved Impact, Good Surface Aesthetics and Wide Processing Window.

GENERAL INFORMATION	
Features	Dielectrics, Laser Direct Structuring, Aesthetics/Visual effects, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber
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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	120	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D638
Tensile Modulus, 5 mm/min	8760	MPa	ASTM D638
Flexural Stress	170	MPa	ASTM D790
Flexural Modulus	8020	MPa	ASTM D790
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 ⁽¹⁾			
Charpy Impact, unnotched, 23°C	50	kJ/m ²	ISO 179/2C
Izod Impact, unnotched, 23°C	700	J/m	ASTM D4812
Izod Impact, notched, 23°C	150	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	40	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1A
Charpy Impact, notched, 23°C	14	kJ/m ²	ISO 179/2C
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm	126	°C	ASTM D648
HDT, 1.82 MPa, 3.2 mm	122	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	2.1E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.9E-05	1/°C	ASTM E831
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 ⁽¹⁾			
Specific Gravity	1.47	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽²⁾	0.05 – 0.1	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm ⁽²⁾	0.2 – 0.4	%	SABIC method
Melt Flow Rate, 280°C/2.16 kgf	10	g/10 min	ASTM D1238
Melt Flow Rate, 280°C/5.0 kgf	27	g/10 min	ASTM D1238
Melt Flow Rate, 300°C/1.2 kgf	16	g/10 min	ASTM D1238
Melt Volume Rate, MVR at 300°C/1.2 kg	13	cm ³ /10 min	ASTM D1238
ELECTRICAL ⁽¹⁾			
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 ⁽³⁾			
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	

(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) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) 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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.