LNP™ THERMOCOMP™ COMPOUND DX09309

DESCRIPTION

LNP THERMOCOMP DX09309 compound is based on Polycarbonate (PC) resin containing proprietary fillers. Added features of this grade include: High Dielectric Constant.

GENERAL INFORMATION	
Features	Dielectrics, 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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	27	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4.2	%	ASTM D638
Flexural Stress	60	MPa	ASTM D790
Flexural Modulus	2490	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched, 23°C	68	J/m	ASTM D256
THERMAL [1]			
HDT, 1.82 MPa, 6.4 mm, unannealed	103	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	97	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.2E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.4E-05	1/°C	ASTM E831
PHYSICAL [1]			
Specific Gravity	2.24	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm [2]	0.65	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm [2]	0.56	%	SABIC method
Melt Volume Rate, MVR at 280°C/2.16kg	15.7	cm³/10 min	ASTM D1238
ELECTRICAL [1]			
Dielectric Constant, 1.1 GHz	8	-	SABIC method
Dissipation Factor, 1.1 GHz	0.01	-	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	90 – 110	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time	3 – 5	Hrs	
Melt Temperature	280 – 320	°C	
Nozzle Temperature	280 – 320	°C	
Front - Zone 3 Temperature	280 – 320	°C	
Middle - Zone 2 Temperature	280 – 320	°C	
Rear - Zone 1 Temperature	250 – 280	°C	
Mold Temperature	90 – 120	°C	
Back Pressure	1 – 5	MPa	
Screw Speed	30 – 100	rpm	

(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.

DISCLAIMER