LNP™ THERMOCOMP™ COMPOUND Z1C00I

DESCRIPTION

LNP THERMOCOMP Z1C00I compound is based on Polyphenylene Ether / Polystyrene (PPE/PS) blend containing proprietary fillers. Added features of this grade include: Ultra-Low Dielectric Constant and Loss Tangent, High HDT, Low Warpage, Excellent Surface Finishing and Chemical Resistant. It can also be Electro-less or Electro plated.

GENERAL INFORMATION	
Features	Chemical Resistance, Low Warpage, Dielectrics, Electroplatable, High temperature resistance, Impact resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
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 20260320

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	70	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	50	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	12	%	ASTM D638
Tensile Modulus, 50 mm/min	2600	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	110	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	110	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2500	MPa	ASTM D790
Tensile Stress, break, 50 mm/min	55	MPa	ISO 527
Tensile Strain, break, 50 mm/min	15	%	ISO 527
Tensile Modulus, 1 mm/min	2700	MPa	ISO 527
Flexural Stress, break, 2 mm/min	115	MPa	ISO 178
Flexural Modulus, 2 mm/min	2600	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	50	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1050	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	50	kJ/m²	ISO 180/1U
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	160	°C	ISO 75/Bf
PHYSICAL [1]			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.06	g/cm³	ISO 1183
Melt Volume Rate, MVR at 300°C/5.0 kg	10	cm³/10 min	ISO 1133
Mold Shrinkage, flow [2]	0.6 – 0.9	%	SABIC method
Mold Shrinkage, xflow [2]	0.6 – 0.9	%	SABIC method
ELECTRICAL [1]			
Dielectric Constant			
1.1 GHz	2.54	-	SABIC method
1.9 GHz	2.55	-	SABIC method
5 GHz	2.56	-	SABIC method
Dissipation Factor			
1.1 GHz	0.0008	-	SABIC method
1.9 GHz	0.0011	-	SABIC method
5 GHz	0.0015	-	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	120	°C	
Drying Time	3 – 5	Hrs	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	280 – 300	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	280 – 290	°C	
Rear - Zone 1 Temperature	270 – 280	°C	
Mold Temperature	80 – 120	°C	
Back Pressure	10	MPa	
Screw Speed	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.

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