LNP™ THERMOCOMP™ COMPOUND MC004

MC-1004

DESCRIPTION

LNP THERMOCOMP MC004 compound is based on Polypropylene (PP) resin containing 20% carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polypropylene, Unspecified (PP, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Sport/Leisure, 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, break, 5 mm/min	48	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.5	%	ISO 527
Tensile Modulus, 1 mm/min	8100	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	64	MPa	ISO 178
Flexural Stress, break, 2 mm/min	32	MPa	ISO 178
Flexural Modulus, 2 mm/min	7300	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched 80*10*4 +23°C	15	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, 23°C to 60°C, flow	3.3E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.25E-04	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	129	°C	ISO 75/Af
PHYSICAL [1]			
Mold Shrinkage on Tensile Bar, flow [2]	0.05 – 0.25	%	SABIC method
Density	1	g/cm³	ISO 1183
ELECTRICAL [1]			
Surface Resistivity	1.E+02 – 1.E+04	Ω	ASTM D257
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Temperature	225 – 250	°C	
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	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