

LNPTM THERMOCOMPTM COMPOUND MC002

MC-1002

DESCRIPTION

LNP THERMOCOMP MC002 compound is based on Polypropylene (PP) resin containing 10% 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, yld, Type I, 5 mm/min	35	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	36	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D638
Tensile Modulus, 5 mm/min	11170	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	55	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	4700	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	24	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.7	%	ISO 527
Tensile Modulus, 1 mm/min	6290	MPa	ISO 527
Flexural Stress	77	MPa	ISO 178
Flexural Modulus, 2 mm/min	9590	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	299	J/m	ASTM D4812
Izod Impact, notched, 23°C	48	J/m	ASTM D256
Multiaxial Impact	5	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	11	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	145	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	116	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	0.95	-	ASTM D792
Density	0.95	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.04	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.7 – 1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.7 – 1	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
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.

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.

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