

LNPTTM THERMOCOMPTM COMPOUND EC006E

EC-1006 EM

DESCRIPTION

LNP THERMOCOMP EC006E compound is based on Polyetherimide (PEI) resin containing 30% carbon fiber. Added features of this grade include: Easy Molding, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Good Processability, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
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, break	230	MPa	ASTM D638
Tensile Strain, break	1.5	%	ASTM D638
Tensile Modulus, 50 mm/min	23300	MPa	ASTM D638
Flexural Stress	314	MPa	ASTM D790
Flexural Modulus	19160	MPa	ASTM D790
Tensile Stress, break	215	MPa	ISO 527
Tensile Strain, break	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	18470	MPa	ISO 527
Flexural Stress	306	MPa	ISO 178
Flexural Modulus	20800	MPa	ISO 178
IMPACT ⁽¹⁾			
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	34	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	206	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm	208	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.394	g/cm ³	ASTM D792

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption, (23°C/50% RH/24 hrs)	0.17	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.5	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.51	%	ISO 294
Wear Factor Washer	75	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.52	-	ASTM D3702 Modified: Manual
Static COF	0.48	-	ASTM D3702 Modified: Manual
Density	1.39	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.25	%	ISO 62
INJECTION MOLDING ⁽³⁾			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 400	°C	
Rear - Zone 1 Temperature	360 – 380	°C	
Middle - Zone 2 Temperature	370 – 390	°C	
Front - Zone 3 Temperature	380 – 400	°C	
Nozzle Temperature	390 – 400	°C	
Mold Temperature	140 – 180	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.2 – 0.3	m/s	
Vent Depth	0.025 – 0.076	mm	

- (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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