LNP™ THERMOCOMP™ COMPOUND EF006ER

EF-1006 EM MR

DESCRIPTION

LNP THERMOCOMP EF006ER compound is based on Polyetherimide (PEI) resin containing 30% glass fiber. Added features of this grade include: Easy Molding, Mold Release.

GENERAL INFORMATION	
Features	Good Processability, Enhanced mold release, High stiffness/Strength, High temperature resistance
Fillers	Glass Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Aerospace
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
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	164	MPa	ASTM D638
Tensile Strain, break	3	%	ASTM D638
Tensile Modulus, 5 mm/min	10100	MPa	ASTM D638
Flexural Stress	241	MPa	ASTM D790
Flexural Modulus	9340	MPa	ASTM D790
Tensile Stress, break	154	MPa	ISO 527
Tensile Strain, break	3	%	ISO 527
Tensile Modulus, 1 mm/min	10200	MPa	ISO 527
Flexural Stress	235	MPa	ISO 178
Flexural Modulus	9700	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	646	J/m	ASTM D4812
Izod Impact, notched, 23°C	90	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	39	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	203	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	195	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.34E-05	1/°C	ASTM E831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	4.14E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	2.30E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.20E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	207	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	201	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.52	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (2)	0.23	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	0.52	%	ISO 294
Density	1.52	g/cm³	ISO 1183
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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