LNP™ THERMOCOMP™ COMPOUND EC005

EC-1005
REGION ASIA

DESCRIPTION

LNP THERMOCOMP* EC005 is a compound based on Polyetherimide resin containing 25% Carbon Fiber. Added features of this material include: Electrically Conductive.

TYPICAL PROPERTY VALUES

Revision 20181212

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	200	MPa	ASTM D 638
Tensile Strain, break	2.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	12330	MPa	ASTM D 638
Flexural Stress	277	MPa	ASTM D 790
Flexural modulus	14320	MPa	ASTM D 790
Tensile Stress, break	194	MPa	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	11700	MPa	ISO 527
Flexural Stress	276	MPa	ISO 178
Flexural Modulus	15010	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	430	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	10	J	ASTM D 3763
Multiaxial Impact	7	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	206	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.9E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.71E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.92E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.71E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	206	°C	ISO 75/Af
PHYSICAL			
Density	1.365	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.17	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1 – 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.3 – 0.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.1 – 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.3 – 0.5	%	ISO 294
Density	1.37	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.23	%	ISO 62

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Volume Resistivity	100 – 1000000	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+02 – 1.E+05	Ohm	ASTM D 257
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 365	°C	
Front - Zone 3 Temperature	365 – 375	°C	
Middle - Zone 2 Temperature	355 – 365	°C	
Rear - Zone 1 Temperature	345 – 355	°C	
Mold Temperature	120 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	

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