LNP™ THERMOCOMP™ COMPOUND 2C004

FP-EC-1004
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP 2C004 is a compound based on ETFE resin containing 20% Carbon Fiber. Added features of this material include: Electrically Conductive.

TYPICAL PROPERTY VALUES

Revision 20181030

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	60	MPa	ASTM D 638
Tensile Strain, break	2.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	13300	MPa	ASTM D 638
Flexural Stress	106	MPa	ASTM D 790
Flexural Modulus	10540	MPa	ASTM D 790
Tensile Stress, break	59	MPa	ISO 527
Tensile Strain, break	2	%	ISO 527
Tensile Modulus, 1 mm/min	12180	MPa	ISO 527
Flexural Stress	120	MPa	ISO 178
Flexural Modulus	10550	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	587	J/m	ASTM D 4812
Izod Impact, notched, 23°C	181	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	14	J	ASTM D 3763
Multiaxial Impact	6	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	36	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	252	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.4E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.56E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.4E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	246	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	187	°C	ISO 75/Af
PHYSICAL			
Density	1.75	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.09	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2.2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.65	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	2.22	%	ISO 294

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.74	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4	hrs	
Melt Temperature	315	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	280 – 295	°C	
Mold Temperature	95 – 120	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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