

## LNP\* Thermocomp\* Compound 2C004

Americas: COMMERCIAL

Also known as: FP-EC-1004  
Product Reorder Name: 2C004

LNP THERMOCOMP\* 2C004 is a compound based on Ethylene Tetrafluoroethylene Copolymer resin containing Carbon Fiber. Added features of this material include: Electrically Conductive.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
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	Value	Unit	Standard
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/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
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	Value	Unit	Standard
Density	1.75	g/cm <sup>3</sup>	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
Density	1.74	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62

Source GMD, last updated:10/01/2004

Parameter	Value	Unit
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

Source GMD, last updated:10/01/2004

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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