

# LNPT<sup>™</sup> THERMOCOMP<sup>™</sup> COMPOUND JF002

JF-1002

REGION AMERICAS

## DESCRIPTION

LNP THERMOCOMP JF002 compound is based on Polyethersulfone (PES) resin containing 10% glass fiber.

GENERAL INFORMATION	
Features	High stiffness/Strength, High temperature resistance
Fillers	Glass Fiber
Polymer Types	Polyethersulfone (PESU)
Processing Techniques	Injection Molding

  

INDUSTRY	SUB INDUSTRY
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
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yld, Type I, 5 mm/min	105	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	102	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	5.4	%	ASTM D638
Tensile Modulus, 5 mm/min	4680	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	176	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	4370	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	103	MPa	ISO 527
Tensile Stress, break, 5 mm/min	104	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.3	%	ISO 527
Tensile Strain, break, 5 mm/min	5	%	ISO 527
Tensile Modulus, 1 mm/min	4460	MPa	ISO 527
Flexural Modulus, 2 mm/min	4080	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	839	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	52	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	220	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	214	°C	ASTM D648
CTE, -30°C to 30°C, flow	3.7E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	4.4E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	221	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	212	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.45	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.51	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.5 – 0.7	%	ASTM D955
Density	1.45	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.85	%	ISO 62
<b>FLAME CHARACTERISTICS <sup>(3)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101282575</a>	-	-
UL Recognized, 94V-0 Flame Class Rating	0.5	mm	UL 94
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	355 – 370	°C	
Front - Zone 3 Temperature	370 – 380	°C	
Middle - Zone 2 Temperature	360 – 370	°C	
Rear - Zone 1 Temperature	345 – 355	°C	
Mold Temperature	140 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	

- (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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (4) 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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