

# LNP<sup>TM</sup> THERMOTUF<sup>TM</sup> COMPOUND WF002I

WF-1002 HI

## DESCRIPTION

LNP THERMOTUF WF006I is a compound based on PBT resin containing 10% Glass Fiber. Added feature of this grade is: High Impact.

## TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	64	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	55	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	4.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	3770	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	102	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3320	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	62	MPa	ISO 527
Tensile Stress, break, 5 mm/min	60	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	4.3	%	ISO 527
Tensile Modulus, 1 mm/min	3670	MPa	ISO 527
Flexural Stress	102	MPa	ISO 178
Flexural Modulus, 2 mm/min	3270	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	708	J/m	ASTM D 4812
Izod Impact, notched, 23°C	125	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	6	J	ASTM D 3763
Izod Impact, unnotched 80°10'4 +23°C	39	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10'4 +23°C	11	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	214	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	178	°C	ASTM D 648
CTE, -30°C to 30°C, flow	7.2E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.11E-04	1/°C	ASTM D 696
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	161	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.32	-	ASTM D 792
Density	1.32	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.07	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 – 3	%	ASTM D 955

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
<b>INJECTION MOLDING</b>			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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