



LNP™ THERMOTUF™ Compound PF006I

Americas: COMMERCIAL

Also known as: LNP™ THERMOTUF™ Compound PF-1006 HI

Product reorder name: PF006I

LNP THERMOTUF™ PF006I is a compound based on Nylon 6 resin containing 30% Glass Fiber. Added features of this material include: High Impact.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	500	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	990	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	8.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	165400	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1600	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	69500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	35	MPa	ISO 527
Tensile Stress, break, 5 mm/min	99	MPa	ISO 527
Tensile Modulus, 1 mm/min	9650	MPa	ISO 527
IMPACT			
Izod Impact, unnotched, 23°C	74	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	10	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	163	cm-kgf	ASTM D 3763
Multiaxial Impact	50	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	139	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	137	°C	ASTM D 648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	135	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.35	-	ASTM D 792
Density	1.35	g/cm ³	ASTM D 792



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Moisture Absorption, 50% RH, 24 hrs	0.83	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.9 - 2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.11 - 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.62 - 0.67	%	ISO 294
Density	1.37	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.83	%	ISO 62
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating (3)(4)	1.5	mm	UL 94 by SABIC-IP



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15 - 0.25	%
Melt Temperature	265 - 275	°C
Front - Zone 3 Temperature	275 - 290	°C
Middle - Zone 2 Temperature	265 - 275	°C
Rear - Zone 1 Temperature	250 - 260	°C
Mold Temperature	80 - 95	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	30 - 60	rpm