SABIC Innovative Plastics™

LNP* Thermotuf* Compound PF006I

Americas: COMMERCIAL

Also known as: PF-1006 HI
Product Reorder Name: PF006I

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

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, break	142	MPa	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	50	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	97	MPa	ASTM D 638
Tensile Strain, break	3.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	8.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	16230	MPa	ASTM D 638
Flexural Stress	211	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	157	MPa	ASTM D 790
Flexural Modulus	6550	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	6820	MPa	ASTM D 790
Tensile Stress, break	138	MPa	ISO 527
Tensile Stress, yield, 5 mm/min	35	MPa	ISO 527
Tensile Stress, break, 5 mm/min	99	MPa	ISO 527
Tensile Strain, break	8.1	%	ISO 527
Tensile Modulus, 1 mm/min	9650	MPa	ISO 527
Flexural Stress	148	MPa	ISO 178
Flexural Modulus	6510	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	727	J/m	ASTM D 4812
Izod Impact, notched, 23°C	106	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	16	J	ASTM D 3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
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	Value	Unit	Standard
Specific Gravity	1.35	-	ASTM D 792
Density	1.35	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.83	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.9 - 2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.11 - 0.3	%	ISO 294

Mold Shrinkage, xflow, 24 hrs	0.62 - 0.67	%	ISO 294
Density	1.37	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.83	%	ISO 62
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Compliant, 94HB Flame Class Rating (3)(4)	1.5	mm	UL 94 by GE

Source GMD, last updated:10/02/2004

Processing

Parameter Injection Molding	Value	Unit
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

Source GMD, last updated:10/02/2004

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.