



LNP™ THERMOTUF™ Compound VF006U

Americas: COMMERCIAL

Also known as: LNP™ THERMOTUF™ Compound VF-1006 UV

Product reorder name: VF006U

LNP* THERMOTUF* VF006U is a compound based on Super Tough Nylon containing 30% Glass Fiber. Added features of this material are: UV Stabilized, High Impact.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	960	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.2	%	ASTM D 638
Tensile Modulus, 50 mm/min	79400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1210	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1160	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	62600	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	95	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	7650	MPa	ISO 527
Flexural Stress	131	MPa	ISO 178
Flexural Modulus, 2 mm/min	6740	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	54	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	8	cm-kgf/cm	ASTM D 256
Multiaxial Impact	36	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	179	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	34	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	253	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	235	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.1E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	9.9E-05	1/°C	ASTM D 696

(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.

(5) 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.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	254	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	237	°C	ISO 75/Af
PHYSICAL			
Density	1.32	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.5	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.3 - 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.9 - 2	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.72	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15	%
Melt Temperature	280 - 295	°C
Front - Zone 3 Temperature	295 - 305	°C
Middle - Zone 2 Temperature	275 - 290	°C
Rear - Zone 1 Temperature	260 - 270	°C
Mold Temperature	95 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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Source GMD, last updated: