

LNP* Thermotuf* Compound V1000

Americas: COMMERCIAL

Also known as: V-1000
Product Reorder Name: V1000

LNP THERMOTUF* V1000 is a compound based on Nylon resin. Added features of this material include: High Impact.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	45	MPa	ASTM D 638
Tensile Stress, break	50	MPa	ASTM D 638
Tensile Strain, yield	4.6	%	ASTM D 638
Tensile Strain, break	60.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	1930	MPa	ASTM D 638
Flexural Stress	74	MPa	ASTM D 790
Flexural Modulus	1930	MPa	ASTM D 790
Tensile Stress, yield	44	MPa	ISO 527
Tensile Stress, break	50	MPa	ISO 527
Tensile Strain, yield	17.1	%	ISO 527
Tensile Strain, break	168.1	%	ISO 527
Tensile Modulus, 1 mm/min	1800	MPa	ISO 527
Flexural Stress	64	MPa	ISO 178
Flexural Modulus	1700	MPa	ISO 178
IMPACT	Value	Unit	Standard
Instrumented Impact Energy @ peak, 23°C	56	J	ASTM D 3763
Multiaxial Impact	77	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	84	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 1.82 MPa, 3.2mm, unannealed	53	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.27E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.26E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.27E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.26E-04	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	56	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.073	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.8	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1.3 - 1.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.3 - 1.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	1.3 - 1.5	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.3 - 1.5	%	ISO 294
Density	1.07	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.37	%	ISO 62

Source GMD, last updated:10/02/2004

Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15 - 0.25	%
Melt Temperature	270 - 295	°C
Front - Zone 3 Temperature	290 - 300	°C
Middle - Zone 2 Temperature	270 - 280	°C
Rear - Zone 1 Temperature	260 - 270	°C
Mold Temperature	50 - 95	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	60 - 10	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.

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