

LNP* Thermotuf* Compound VF1001S

Americas: COMMERCIAL

Also known as: THERMOTUF VF-1001 HSBK8-115
Product Reorder Name: VF1001S

LNP* Thermotuf* VF1001S is a Super Tough Nylon containing glass fiber. Characteristics of this grade is Heat Stabilized.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	61	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	56	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	9.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	3390	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2940	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	61	MPa	ISO 527
Tensile Stress, break, 5 mm/min	56	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	7.6	%	ISO 527
Tensile Modulus, 1 mm/min	3290	MPa	ISO 527
Flexural Stress	86	MPa	ISO 178
Flexural Modulus, 2 mm/min	2760	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	720	J/m	ASTM D 4812
Izod Impact, notched, 23°C	106	J/m	ASTM D 256
Multiaxial Impact	11	J	ISO 6603
Instrumented Impact Total Energy, 23°C	8	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	41	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	249	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	198	°C	ASTM D 648
CTE, -30°C to 30°C, flow	6.37E+01	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	9.79E+01	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	242	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	154	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.12	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.68	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 - 3	%	ASTM D 955
Density	1.12	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62

Source GMD, last updated:2009/04/07

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:2009/04/07

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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