

LNP™ THERMOTUF™ COMPOUND VF1001S

VF-1001 HS
REGION AMERICAS

DESCRIPTION

LNP THERMOTUF VF1001S is a compound based on Super Tough Nylon resin containing 5% Glass Fiber. Added features of this material include: Heat Stabilized, High Impact.

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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			
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			
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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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			
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 (5)	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 – 3	%	ASTM D 955
Density	1.12	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62
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	10 – 60	rpm	

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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