LNP™ THERMOTUF™ COMPOUND V1000

V-1000
REGION ASIA

DESCRIPTION

LNP THERMOTUF* V1000 is a compound based on unfilled Super Tough Nylon resin. Added feature of this material is: High Impact.

TYPICAL PROPERTY VALUES

Revision 20190606

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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			
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/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	84	kJ/m²	ISO 180/1A
THERMAL			
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
Relative Temp Index, Elec [1]	110	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	75	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	85	°C	UL 746B
PHYSICAL			
Density	1.073	g/cm³	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

© 2019 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.37	%	ISO 62
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101282736	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
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	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2019 Copyright by SABIC. All rights reserved