

LNP™ THERMOTUF™ COMPOUND V1000UXC

V-1000 UV HP
REGION AMERICAS

DESCRIPTION

LNP THERMOTUF V1000UXC is a compound based on unfilled Super Tough Nylon resin. Added feature of this material is: UV Stabilized.

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	39	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	39	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	57.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	84.5	%	ASTM D 638
Tensile Modulus, 5 mm/min	1710	MPa	ASTM D 638
Flexural Stress	55	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	41	MPa	ISO 527
Tensile Stress, break, 5 mm/min	41	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	146.7	%	ISO 527
Tensile Strain, break, 5 mm/min	165	%	ISO 527
Tensile Modulus, 1 mm/min	1650	MPa	ISO 527
Flexural Stress	53	MPa	ISO 178
Flexural Modulus	1700	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D 4812
Multiaxial Impact	49	J	ISO 6603
Instrumented Impact Total Energy, 23°C	49	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m ²	ISO 180/1U
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	192	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	193	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.35E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.33E-04	1/°C	ASTM E 831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	1.34E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.34E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	150	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	147	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.07	-	ASTM D 792
Density	1.065	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.6	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	2.1 – 2.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2.5 – 2.7	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	2.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	2.6	%	ISO 294
Density	1.08	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1	%	ISO 62
MECHANICAL PROPERTIES			
Flexural modulus	2060	MPa	ISO 178/1A
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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