

LNPTTM THERMOTUFTM COMPOUND V1000UXC

V-1000 UV HP

DESCRIPTION

LNP THERMOTUF V1000UXC compound is based on Super Tough Nylon resin. Added features of this grade include: Impact Modified, UV Stabilized.

GENERAL INFORMATION

Features	Impact resistant, Weatherable/UV stable, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY

Building and Construction
Consumer
Electrical and Electronics
Industrial

SUB INDUSTRY

Building Component
Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Mobile Phone - Computer - Tablets
Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	39	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	39	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	57.2	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	84.5	%	ASTM D638
Tensile Modulus, 5 mm/min	1710	MPa	ASTM D638
Flexural Stress	55	MPa	ASTM D790
Flexural Modulus	2060	MPa	ASTM D790
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 ⁽¹⁾			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Multiaxial Impact	49	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	49	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	NB	kJ/m ²	ISO 180/1U
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	192	°C	ASTM D648

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CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	193	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.35E-04	1 / °C	ASTM E831
CTE, -40°C to 40°C, xflow	1.33E-04	1 / °C	ASTM E831
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 ⁽¹⁾			
Specific Gravity	1.07	-	ASTM D792
Density	1.065	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.6	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	2.1 – 2.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	2.5 – 2.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	2.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	2.6	%	ISO 294
Density	1.08	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1	%	ISO 62
INJECTION MOLDING ⁽³⁾			
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) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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