

LNPTM THERMOTUFTM COMPOUND V1000UXC

V-1000 UV HP

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 20191216

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
Flexural Modulus	2060	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
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	2.1 – 2.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2.5 – 2.7	%	ASTM D 955

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs	2.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	2.6	%	ISO 294
Density	1.08	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	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	

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