LNP™ THERMOTUF™ COMPOUND PX06417

PF-1008 HI HS UV

DESCRIPTION

LNP THERMOTUF PX06417 is a compound based on Nylon 6 resin containing 40% Glass Fiber. Added features of this material include: Heat Stabilized, High Impact, UV Stabilized.

TYPICAL PROPERTY VALUES

Revision 20200109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	152	MPa	ASTM D 638
Tensile Strain, break	2.4	%	ASTM D 638
Tensile Modulus, 50 mm/min	12820	MPa	ASTM D 638
Flexural Stress	228	MPa	ASTM D 790
Flexural Modulus	8960	MPa	ASTM D 790
Tensile Stress, break	147	MPa	ISO 527
Tensile Strain, break	2.9	%	ISO 527
Tensile Modulus, 1 mm/min	11400	MPa	ISO 527
Flexural Stress	243	MPa	ISO 178
Flexural Modulus	11000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1089	J/m	ASTM D 4812
Izod Impact, notched, 23°C	149	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	15	J	ASTM D 3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	70	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	220	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.59E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.6E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	207	°C	ISO 75/Af
Relative Temp Index, Elec [1]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	65	°C	UL 746B
PHYSICAL			
Density	1.46	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.64	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.17	%	ISO 294

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	0.93	%	ISO 294
Density	1.46	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.02	%	ISO 62
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-101281614	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	265 – 275	°C	
Front - Zone 3 Temperature	275 – 290	°C	
Middle - Zone 2 Temperature	265 – 275	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	30 – 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.

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