

LNPTM THERMOCOMPTM COMPOUND UF0067W

UF-1006 HW Z270

DESCRIPTION

LNP THERMOCOMP UF0067W is a compound based on Polyphthalamide resin containing 30% glass fiber. Added features of this material include: Hot Water Moldable, Non-Brominated & Non-Chlorinated Flame Retardant.

TYPICAL PROPERTY VALUES

Revision 20200110

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	143	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D 638
Tensile Modulus, 5 mm/min	10540	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	213	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	10200	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	128	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	11310	MPa	ISO 527
Flexural Stress	189	MPa	ISO 178
Flexural Modulus, 2 mm/min	9130	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	662	J/m	ASTM D 4812
Izod Impact, notched, 23°C	64	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	299	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	281	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.34E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.04E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.11E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	277	°C	ISO 75/Af
Relative Temp Index, Elec ⁽¹⁾	125	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽¹⁾	50	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽¹⁾	125	°C	UL 746B
PHYSICAL			
Density	1.45	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.2 – 1.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.2 – 0.5	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.2 – 1.5	%	ISO 294

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.45	g/cm ³	ISO 1183
ELECTRICAL			
Dielectric Strength, in oil, 0.8 mm	29.7	kV/mm	ASTM D 149
Relative Permittivity, 1 kHz	4.05	-	ASTM D 150
Relative Permittivity, 1 MHz	3.82	-	ASTM D 150
Dissipation Factor, 1 kHz	0.0115	-	ASTM D 150
Dissipation Factor, 1 MHz	0.0128	-	ASTM D 150
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E121562-101284114	-	-
UL Yellow Card Link 2	E207780-103093678	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1	mm	UL 94
INJECTION MOLDING			
Drying Temperature	90 – 110	°C	
Drying Time	3 – 5	hrs	
Melt Temperature	280 – 320	°C	
Nozzle Temperature	280 – 320	°C	
Front - Zone 3 Temperature	280 – 320	°C	
Middle - Zone 2 Temperature	280 – 320	°C	
Rear - Zone 1 Temperature	250 – 280	°C	
Mold Temperature	90 – 120	°C	
Back Pressure	1 – 5	MPa	
Screw Speed	30 – 100	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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