

LNPTM THERMOCOMPTM COMPOUND UF00ASW

UF-100-10 A HS HW

DESCRIPTION

LNP THERMOCOMP UF00ASW is a compound based on Polyphthalamide (PPA) containing glass fiber. Characteristics of this grade of Heat Stabilized and Hot Water Moldable.

TYPICAL PROPERTY VALUES

Revision 20191219

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Flexural Stress, yld, 1.3 mm/min, 50 mm span	335	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	337	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	17500	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	214	MPa	ISO 527
Tensile Stress, break, 5 mm/min	214	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.4	%	ISO 527
Tensile Strain, break, 5 mm/min	1.4	%	ISO 527
Tensile Modulus, 1 mm/min	19060	MPa	ISO 527
Flexural Stress	324	MPa	ISO 178
Flexural Modulus, 2 mm/min	17240	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	788	J/m	ASTM D 4812
Izod Impact, notched, 23°C	91	J/m	ASTM D 256
Multiaxial Impact	3	J	ISO 6603
Instrumented Impact Total Energy, 23°C	6	J	ASTM D 3763
Izod Impact, unnotched 80°10°4 +23°C	45	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	9	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	297	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	285	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.4E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.3E-05	1/°C	ASTM E 831
HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm	296	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm	281	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.65	-	ASTM D 792
Density	1.65	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.27	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 – 0.9	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.33	%	ISO 62
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Temperature	320 – 350	°C	
Front - Zone 3 Temperature	325 – 330	°C	
Rear - Zone 1 Temperature	315 – 320	°C	
Mold Temperature	50 – 105	°C	
Back Pressure	0.2 – 0.5	MPa	
Screw Speed	30 – 60	rpm	

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