LNP™ THERMOCOMP™ Compound UF00ASW

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound UF-100-10 A HS HW BK8-115

Product reorder name: UF00ASW

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 PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Flexural Stress, yld, 1.3 mm/min, 50 mm span	3410	kgf/cm²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	3430	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	178400	kgf/cm²	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	80	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	9	cm-kgf/cm	ASTM D 256
Multiaxial Impact	39	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	64	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	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

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) 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.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
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/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.27	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.2 - 0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.6 - 0.9	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.33	%	ISO 62

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(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	4	hrs
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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