LNP™ THERMOCOMP™ COMPOUND UF00BAS

UF-100-11 A HS

DESCRIPTION

LNP THERMOCOMP UF00BAS compound is based on Polyphthalamide (PPA) resin containing 55% glass fiber. Added features of this grade include: Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyphthalamide (PPA)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood
Consumer	Commercial Appliance
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	227	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	18870	MPa	ISO 527
Flexural Stress	314	MPa	ISO 178
Flexural Modulus, 2 mm/min	15910	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	246	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.8	%	ASTM D638
Tensile Modulus, 5 mm/min	19240	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	338	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	17300	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	34	kJ/m²	ISO 180/1U
Multiaxial Impact	1	J	ISO 6603
Izod Impact, notched, 23°C	82	J/m	ASTM D256
Izod Impact, unnotched, 23°C	291	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	5	J	ASTM D3763
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	293	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	272	°C	ISO 75/Af

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	289	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	270	°C	ASTM D648
CTE, -30°C to 30°C, flow	2.80E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	3.50E-05	1/°C	ASTM D696
PHYSICAL [1]			
Moisture Absorption (23°C / 50% RH)	0.21	%	ISO 62
Specific Gravity	1.64	-	ASTM D792
Density	1.6	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.13	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1 – 3	%	ASTM D955
INJECTION MOLDING [3]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	315 – 330	°C	
Front - Zone 3 Temperature	325 – 340	°C	
Middle - Zone 2 Temperature	315 – 325	°C	
Rear - Zone 1 Temperature	310 – 320	°C	
Mold Temperature	140 – 165	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 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.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER