LNP™ THERMOTUF™ Compound AX06401

AF-1004 HI HS

DESCRIPTION

THERMOTUF AX06401 compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing 20% glass fiber. Added features of this grade include: Improved Toughness.

GENERAL INFORMATION	
Applications	Commercial Appliance
Features	High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Acrylonitrile Butadiene Styrene (ABS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Home Appliances
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 1 mm/min	7000	MPa	ISO 527
Tensile Stress, break, 5 mm/min	85	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Flexural Modulus, 2 mm/min	6600	MPa	ISO 178
Flexural Strength, 2 mm/min	146	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	93	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D638
Tensile Modulus, 5 mm/min	6800	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	5650	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	141	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	39	kJ/m²	ISO 180/1U
Izod Impact, notched, 23°C	90	J/m	ASTM D256
Izod Impact, unnotched, 23°C	450	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	11	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, 23°C	10	J	ASTM D3763
Instrumented Dart Impact Peak Force, 23°C	626	N	ASTM D3763
THERMAL [1]			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	102	°C	ISO 75/Af

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate A/50	117	°C	ASTM D1525
CTE, -40°C to 40°C, flow	3.93E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	8.07E-05	1/°C	ASTM E831
Vicat Softening Temp, Rate A/50	117	°C	ISO 306
HDT, 1.82 MPa, 3.2mm, unannealed	102	°C	ASTM D648
PHYSICAL (1)			
Density	1.25	g/cm³	ISO 1183
Moisture Absorption, (23°C/50% RH/24hrs)	0.04	%	ISO 62-4
Mold Shrinkage, flow (2)	1.64	%	SABIC method
Mold Shrinkage, xflow (2)	1.73	%	SABIC method
INJECTION MOLDING (3)			
Drying Temperature	70 – 90	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	250 – 270	°C	
Rear - Zone 1 Temperature	205 – 215	°C	
Middle - Zone 2 Temperature	230 – 245	°C	
Front - Zone 3 Temperature	265 – 275	°C	
Mold Temperature	70 – 80	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	
Vent Depth	–	mm	

(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.

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