LNP™ THERMOTUF™ Compound WF003I

WF-1003 HI
REGION AMERICAS

DESCRIPTION

LNP THERMOTUF WF003I compound is based on Polybutylene Terephthalate (PBT) resin containing 15% glass fiber. Added features of this grade include: Impact Modified.

GENERAL INFORMATION	
Features	Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260204

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	79	MPa	ASTM D638
Flexural Stress	134	MPa	ASTM D790
Flexural Modulus	4580	MPa	ASTM D790
Tensile Stress, yield	78	MPa	ISO 527
Tensile Stress, break	76	MPa	ISO 527
Tensile Strain, yield	3	%	ISO 527
Tensile Strain, break	4	%	ISO 527
Tensile Modulus, 1 mm/min	5000	MPa	ISO 527
Flexural Stress	130	MPa	ISO 178
Flexural Modulus	4710	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	720	J/m	ASTM D4812
Izod Impact, notched, 23°C	128	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	12	J	ASTM D3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	46	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	201	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL [1]			
Density	1.374	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.09	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.75	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.95	%	ISO 294
Density	1.37	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.08	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°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.

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