

LNP™ THERMOTUF™ Compound W1000I

SABIC - Polybutylene Terephthalate

Wednesday, May 15, 2024

General Information					
Product Description					
LNP THERMOTUF W1000I con	npound is based on Polybutylene Terephthalate	(PBT) resin. Added features of this grade in	clude: Impact Modified		
General					
Material Status	Commercial: Active				
Availability	Africa & Middle East	• Europe	North America		
	 Asia Pacific 	Latin America	• North America		
Features	 Good Impact Resistance 	 PFAS not intentionally added 			
Uses	Appliances	Computer Components	Personal Care		
	 Building Materials 	 Electrical/Electronic Applications 	 Sporting Goods 		
	 Cell Phones 	 Heavy Transportation 	 Wire & Cable Applications 		
Processing Method	Injection Molding				

ASTM & ISO Properties 1				
Physical	Nominal Value	Unit	Test Method	
Density	1.22	g/cm ³	ISO 1183	
Molding Shrinkage - Flow	0.020 to 0.024	in/in	Internal Method	
Water Absorption (Equilibrium, 73°F, 50% RH)	0.10	%	ISO 62	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus	218000	psi	ISO 527-1/1	
Tensile Stress (Yield)	5220	psi	ISO 527-2/5	
Flexural Modulus ²	232000	psi	ISO 178	
Flexural Stress ^{2, 3}	6670	psi	ISO 178	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact Strength ⁴ (73°F)	33	ft·lb/in²	ISO 180/1A	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load ⁴			ISO 75-2/Bf	
66 psi, Unannealed, 0.157 in, 2.52 in Span	176	°F		
Deflection Temperature Under Load ⁴			ISO 75-2/Af	
264 psi, Unannealed, 0.157 in, 2.52 in Span	126	°F		
CLTE - Flow (73 to 140°F)	7.8E-5	in/in/°F	ISO 11359-2	
CLTE - Transverse (73 to 140°F)	7.3E-5	in/in/°F	ISO 11359-2	
Electrical	Nominal Value	Unit	Test Method	
Surface Resistivity	1.0E+15	ohms	ASTM D257	

Processing Information		
Injection	Nominal Value Unit	
Drying Temperature	248 °F	
Drying Time	4.0 hr	

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Injection	Nominal Value Unit
Suggested Max Moisture	0.050 %
Rear Temperature	428 to 446 °F
Middle Temperature	473 to 491 °F
Front Temperature	500 to 518 °F
Processing (Melt) Temp	464 to 509 °F
Mold Temperature	176 to 212 °F
Back Pressure	29.0 to 43.5 psi
Screw Speed	30 to 60 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ at Yield

^{4 80*10*4} mm