LNP™ THERMOTUF™ Compound W1000I

SABIC - Polybutylene Terephthalate

Wednesday, May 15, 2024

General Information

Product Description

LNP THERMOTUF W1000I compound is based on Polybutylene Terephthalate (PBT) resin. Added features of this grade include: Impact Modified

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Impact Resistance	• PFAS not intentionally added	
Uses	• Appliances • Building Materials • Cell Phones	• Computer Components • Electrical/Electronic Applications • Heavy Transportation	• Personal Care • Sporting Goods • Wire & Cable Applications
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.22	g/cm³	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