

LNP™ THERMOTUF™ WF006N compound

Polybutylene Terephthalate

SABIC Innovative Plastics Asia Pacific

Message:

30% glass fiber reinforced, high metal bonding strength, high flow, for NMT application

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	High Flow		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.48	g/cm ³	ASTM D792
Melt Volume-Flow Rate (MVR)			ISO 1133
250°C/5.0 kg	14.0	cm ³ /10min	
275°C/5.0 kg	26.0	cm ³ /10min	
Molding Shrinkage			Internal Method
Flow	0.12	%	
Across Flow	0.28	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	7900	MPa	ASTM D638
--	8200	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	110	MPa	ASTM D638
Yield	120	MPa	ISO 527-2/5
Break ³	110	MPa	ASTM D638
Break	120	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	2.7	%	ASTM D638
Yield	2.5	%	ISO 527-2/5
Break ⁵	2.7	%	ASTM D638
Break	2.5	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	6600	MPa	ASTM D790
-- ⁷	7400	MPa	ISO 178
Flexural Stress			
--	166	MPa	ISO 178
Break, 50.0 mm Span ⁸	156	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/2C

-30°C	12	kJ/m ²	
23°C	15	kJ/m ²	
Charpy Unnotched Impact Strength (23°C)	62	kJ/m ²	ISO 179/2U
Notched Izod Impact			
-30°C	120	J/m	ASTM D256
23°C	170	J/m	ASTM D256
-30°C ⁹	11	kJ/m ²	ISO 180/1A
23°C ¹⁰	14	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	840	J/m	ASTM D4812
23°C ¹¹	52	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 6.40 mm	175	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	158	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	153	°C	ASTM D1525 ¹³
--	157	°C	ISO 306/B50
CLTE			
Flow : -40 to 40°C	2.1E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	1.5E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	2.2E-5	cm/cm/°C	ISO 11359-2
Flow : 23 to 80°C	1.6E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	7.9E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	4.5E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	8.2E-5	cm/cm/°C	ISO 11359-2
Transverse : 23 to 80°C	1.0E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.1E+15	ohms · cm	ASTM D257
Dielectric Constant			Internal Method
1.10 GHz	3.53		
1.90 GHz	3.54		
Dissipation Factor			Internal Method
1.10 GHz	0.012		
1.90 GHz	0.011		
Injection	Nominal Value	Unit	
Drying Temperature	100 to 120	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40.0 to 60.0	°C	
Rear Temperature	240 to 260	°C	
Middle Temperature	250 to 270	°C	

Front Temperature	250 to 270	°C
Nozzle Temperature	255 to 275	°C
Processing (Melt) Temp	250 to 270	°C
Mold Temperature	100 to 160	°C

NOTE		
1.	5.0 mm/min	
2.	Type I, 5.0 mm/min	
3.	Type I, 5.0 mm/min	
4.	Type I, 5.0 mm/min	
5.	Type I, 5.0 mm/min	
6.	1.3 mm/min	
7.	2.0 mm/min	
8.	1.3 mm/min	
9.	80*10*4	
10.	80*10*4	
11.	80*10*4	
12.	80*10*4 mm	
13.	Rate B (120°C/h), Loading 2 (50 N)	

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