

LNP™ THERMOTUF™ VF004S compound

Polyamide 66
SABIC Innovative Plastics

Message:

LNP THERMOTUF* VF004S is a compound based on Super Tough Nylon resin containing 20% Glass Fiber. Added features of this material include: Heat Stabilized.
Also known as: LNP* THERMOTUF* Compound VF-1004 HS
Product reorder name: VF004S

General Information			
Filler / Reinforcement	Glass Fiber,20% Filler by Weight		
Additive	Heat Stabilizer		
Features	Heat Stabilized		
	Ultra High Toughness		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.23	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.40 to 0.60	%	
Across Flow : 24 hr	0.80 to 1.0	%	
Water Absorption			
24 hr, 50% RH	0.74	%	ASTM D570
Equilibrium, 23°C, 50% RH	1.1	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	6480	MPa	ASTM D638
--	6210	MPa	ISO 527-2/1
Tensile Strength			
Break ²	102	MPa	ASTM D638
Break	97.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ³	2.8	%	ASTM D638
Yield	2.6	%	ISO 527-2/5
Break ⁴	3.0	%	ASTM D638
Break	3.0	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁵	5620	MPa	ASTM D790
-- ⁶	5080	MPa	ISO 178
Flexural Strength ⁷ (Break, 50.0 mm Span)	156	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact			
23°C	130	J/m	ASTM D256
23°C ⁸	12	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	700	J/m	ASTM D4812
23°C ⁹	43	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	22.1	J	ASTM D3763
--	6.10	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	256	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	235	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	240	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	235	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	3.0E-5	cm/cm/°C	
Transverse : -30 to 30°C	8.1E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.15	%	
Rear Temperature	260 to 271	°C	
Middle Temperature	277 to 288	°C	
Front Temperature	293 to 304	°C	
Processing (Melt) Temp	282 to 293	°C	
Mold Temperature	93.3 to 110	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	50 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	1.3 mm/min		
6.	2.0 mm/min		
7.	1.3 mm/min		
8.	80*10*4		
9.	80*10*4		
10.	80*10*4 mm		
11.	80*10*4 mm		

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Recommended distributors for this material

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