

LNP* Thermotuf* VC006

Polyamide 66

SABIC Innovative Plastics



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Technical Data

Product Description

LNP* THERMOTUF* VC006 is a compound based on Super Tough Nylon 6/6 resin containing Carbon Fiber. Added features of this material include: High Impact.

Also known as: LNP* Thermotuf* Compound VC-1006

Product reorder name: VC006

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
Search for UL Yellow Card	• SABIC Innovative Plastics • LNP* Thermotuf*
Availability	• North America
Filler / Reinforcement	• Carbon Fiber Reinforcement
Features	• High Impact Resistance
Processing Method	• Injection Molding

Physical	Nominal Value Unit	Test Method
Specific Gravity	1.21 g/cm ³	ASTM D792
Molding Shrinkage		ASTM D955
Flow: 24 hr	0.10 to 0.40 %	
Across Flow: 24 hr	0.90 to 2.0 %	
Water Absorption		
24 hr, 50% RH	0.62 %	ASTM D570
Equilibrium, 23°C, 50% RH	0.95 %	ISO 62

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
-- ³	20700 MPa	ASTM D638
--	19300 MPa	ISO 527-2/1
Tensile Strength		
Yield ⁴	197 MPa	ASTM D638
Yield	193 MPa	ISO 527-2/5
Break ⁴	197 MPa	ASTM D638
Break	193 MPa	ISO 527-2/5
Tensile Elongation		
Yield ⁴	2.9 %	ASTM D638
Yield	2.9 %	ISO 527-2/5
Break ⁴	2.9 %	ASTM D638
Break	2.9 %	ISO 527-2/5
Flexural Modulus		
50.0 mm Span ⁵	15300 MPa	ASTM D790
-- ⁶	15500 MPa	ISO 178
Flexural Strength		
--	284 MPa	ISO 178
Yield, 50.0 mm Span ⁵	293 MPa	ASTM D790
Break, 50.0 mm Span ⁵	286 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Notched Izod Impact		
23°C	210 J/m	ASTM D256
23°C ⁷	21 kJ/m ²	ISO 180/1A

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Impact	Nominal Value Unit	Test Method
Unnotched Izod Impact		
23°C	1100 J/m	ASTM D4812
23°C ⁷	75 kJ/m ²	ISO 180/1U
Instrumented Dart Impact		
23°C, Total Energy	32.6 J	ASTM D3763
--	7.80 J	ISO 6603-2
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed, 3.20 mm	261 °C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁸	258 °C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	252 °C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁸	240 °C	ISO 75-2/ Af
CLTE		ASTM D696
Flow: -30 to 30°C	0.000034 cm/cm/°C	
Transverse: -30 to 30°C	0.00010 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

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ 50 mm/min

⁴ Type I, 5.0 mm/min

⁵ 1.3 mm/min

⁶ 2.0 mm/min

⁷ 80*10*4

⁸ 80*10*4 mm

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Where to Buy

Supplier

SABIC Innovative Plastics

Pittsfield, MA USA

Telephone: 800-845-0600

Web: <http://www.sabic-ip.com/>

Distributor

Nexeo Solutions

Telephone: 800-531-7106

Web: <http://www.nexeosolutions.com/>

Availability: North America



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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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