LNP™ THERMOTUF™ COMPOUND VC006

VC-1006
REGION AMERICAS

DESCRIPTION

LNP THERMOTUF VC006 compound is based on Super Tough Nylon resin containing 30% carbon fiber. Added features of this grade include: Impact Modified, Electrically Conductive.

TYPICAL PROPERTY VALUES

Revision 20260204

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	197	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	197	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.9	%	ASTM D638
Tensile Modulus, 50 mm/min	20700	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	293	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	286	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	15300	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	193	MPa	ISO 527
Tensile Stress, break, 5 mm/min	193	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.9	%	ISO 527
Tensile Strain, break, 5 mm/min	2.9	%	ISO 527
Tensile Modulus, 1 mm/min	19340	MPa	ISO 527
Flexural Stress	284	MPa	ISO 178
Flexural Modulus, 2 mm/min	15530	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1070	J/m	ASTM D4812
Izod Impact, notched, 23°C	207	J/m	ASTM D256
Multiaxial Impact	7	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	32	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	74	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	20	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	261	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	250	°C	ASTM D648
CTE, -30°C to 30°C, flow	3.4E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.02E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	258	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	240	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.21	-	ASTM D792
Density	1.21	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.62	%	ASTM D570

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs [2]	0.25	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.95	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	280 – 295	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	275 – 290	°C	
Rear - Zone 1 Temperature	260 – 270	°C	
Mold Temperature	95 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2026 Copyright by SABIC. All rights reserved