LNP™ THERMOTUF™ Compound VF004S

VF-1004 HS
REGION EUROPE

DESCRIPTION

LNP THERMOTUF VF004S compound is based on Super Tough Nylon resin containing 20% glass fiber. Added features of this grade include: Impact Modified, Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, High stiffness/Strength, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield, 5 mm/min	94	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.5	%	ISO 527
Tensile Modulus, 1 mm/min	6000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	134	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched 80*10*4 +23°C	55	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	22	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, 23°C to 60°C, flow	3.8E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.7E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	248	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	235	°C	ISO 75/Af
PHYSICAL [1]			
Mold Shrinkage, flow [2]	0.3 – 0.6	%	SABIC method
Density	1.23	g/cm³	ISO 1183
Water Absorption, (23°C/24hrs)	0.7	%	ISO 62-1
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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.

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