

## LNP\* Thermocomp\* Compound RF004H

Americas: COMMERCIAL

Also known as: THERMOCOMP RF-1004  
Product Reorder Name: RF004H

LNP\* Thermocomp\* RF006H is a compound based on Nylon 6/6 containing Glass Fiber. Characteristics of this grade are: Healthcare.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, brk, Type I, 5 mm/min	156	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	7170	MPa	ASTM D 638
Flexural Stress	230	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5860	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	159	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.7	%	ISO 527
Tensile Modulus, 1 mm/min	7300	MPa	ISO 527
Flexural Stress	241	MPa	ISO 178
Flexural Modulus, 2 mm/min	7000	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	833	J/m	ASTM D 4812
Izod Impact, notched, 23°C	101	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	11	J	ASTM D 3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	56	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	260	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	247	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.78E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.92E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.88E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	7.94E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	221	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.3	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.89	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 3	%	ASTM D 955
Density	1.29	g/cm <sup>3</sup>	ISO 1183

Source GMD, last updated:2009/07/29

### Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	80	°C

Drying Time	4	hrs
Maximum Moisture Content	0.15 - 0.25	%
Melt Temperature	280 - 305	°C
Front - Zone 3 Temperature	295 - 305	°C
Middle - Zone 2 Temperature	280 - 295	°C
Rear - Zone 1 Temperature	265 - 275	°C
Mold Temperature	95 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:2009/07/29

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) 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.

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