

# LNPT<sup>TM</sup> THERMOCOMP<sup>TM</sup> COMPOUND RF00AH

RF-100-10 HC

## DESCRIPTION

LNP THERMOCOMP RF00AH compound is based on Nylon 6/6 resin containing 50% glass fiber. Added features of this grade include: Healthcare.

GENERAL INFORMATION	
Features	Healthcare/Formula lock, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, break	182	MPa	ISO 527
Tensile Strain, break	8.1	%	ISO 527
Tensile Modulus, 1 mm/min	17810	MPa	ISO 527
Flexural Stress	265	MPa	ISO 178
Flexural Modulus	14900	MPa	ISO 178
Tensile Stress, break	166	MPa	ASTM D638
Tensile Strain, break	7.8	%	ASTM D638
Tensile Modulus, 50 mm/min	17230	MPa	ASTM D638
Flexural Stress	262	MPa	ASTM D790
Flexural Modulus	14470	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched 80*10*4 +23°C	11	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	60	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched, 23°C	96	J/m	ASTM D256
Izod Impact, unnotched, 23°C	939	J/m	ASTM D4812
<b>THERMAL <sup>(1)</sup></b>			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	243	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.1E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	252	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	243	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.2E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.1E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.6	g/cm <sup>3</sup>	ISO 1183
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.37	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1.2	%	ISO 294
Density	1.6	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.4	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1.1 – 1.3	%	ASTM D955
<b>INJECTION MOLDING <sup>(3)</sup></b>			
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	

- (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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