

LNPTM THERMOCOMPTM COMPOUND RF003XXH

RF-1003 HC

DESCRIPTION

LNP THERMOCOMP RF003XXH compound is based on Nylon 6/6 resin containing 15% 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

Hygiene and Healthcare
Packaging

SUB INDUSTRY

Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	103	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.6	%	ASTM D638
Tensile Modulus, 5 mm/min	5120	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	171	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	4510	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	97	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	5160	MPa	ISO 527
Flexural Stress	156	MPa	ISO 178
Flexural Modulus, 2 mm/min	3950	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	437	J/m	ASTM D4812
Izod Impact, notched, 23°C	57	J/m	ASTM D256
Multiaxial Impact	1	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	6	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	27	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	256	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	240	°C	ASTM D648
CTE, -30°C to 30°C, flow	5.3E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	8.E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm	248	°C	ISO 75/Bf

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	212	°C	ISO 75 /Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.22	-	ASTM D792
Density	1.22	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	1.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	1.6	%	ISO 62
INJECTION MOLDING ⁽³⁾			
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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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