

# LNPTM THERMOCOMPTM COMPOUND RF004

RF-1004  
REGION EUROPE

## DESCRIPTION

LNP THERMOCOMP RF004 compound is based on Nylon 6/6 resin containing 20% glass fiber.

GENERAL INFORMATION	
Features	High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
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, Defense

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL <sup>(1)</sup>			
Tensile Stress, break, 5 mm/min	130	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.5	%	ISO 527
Tensile Modulus, 1 mm/min	7150	MPa	ISO 527
Flexural Stress, break, 2 mm/min	190	MPa	ISO 178
Flexural Modulus, 2 mm/min	6800	MPa	ISO 178
Hardness, Rockwell L	112	-	ISO 2039-2
IMPACT <sup>(1)</sup>			
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	5	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	4	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	65	kJ/m²	ISO 179/1eU
THERMAL <sup>(1)</sup>			
Thermal Conductivity	0.33	W/m·°C	ISO 8302
CTE, 23°C to 60°C, flow	3.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	9.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	255	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	245	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	230	°C	ISO 75/Ae
PHYSICAL <sup>(1)</sup>			



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage on Tensile Bar, flow <sup>(2)</sup>	0.2 – 0.5	%	SABIC method
Density	1.29	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/saturated)	5.5	%	ISO 62-1
<b>ELECTRICAL <sup>(1)</sup></b>			
Volume Resistivity	>1.E+16	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+16	Ω	IEC 60093
Dielectric Strength, in oil, 3.2 mm	19	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	3.2	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0068	-	IEC 60250
Dissipation Factor, 1 MHz	0.015	-	IEC 60250
Comparative Tracking Index	500	V	IEC 60112
Comparative Tracking Index, M	400	V	IEC 60112
Relative Permittivity, 50/60 Hz	3.4	-	IEC 60250
<b>FLAME CHARACTERISTICS</b>			
Oxygen Index (LOI)	27	%	ISO 4589
FMVSS Burning Speed, thickness 2 mm	10	mm/min	FMVSS 302
FMVSS Burning Speed, thickness 3 mm	5	mm/min	FMVSS 302
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	75 – 85	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.2	%	
Melt Temperature	260 – 290	°C	
Nozzle Temperature	250 – 270	°C	
Front - Zone 3 Temperature	260 – 280	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	270 – 290	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	70 – 120	°C	

- (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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