LNP™ THERMOCOMP™ 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 (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, Defense

TYPICAL PROPERTY VALUES

Revision 20261109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
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 [1]			
Izod impact, notched			
80*10*4 +23°C	7	kJ/m²	ISO 180/1A
80*10*4 -20°C	5	kJ/m²	ISO 180/1A
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 [1]			
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

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL [1]			
Mold Shrinkage on Tensile Bar, flow [2]	0.2 – 0.5	%	SABIC method
Density	1.29	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	5.5	%	ISO 62-1
ELECTRICAL [1]			
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
FLAME CHARACTERISTICS			
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
INJECTION MOLDING [3]			
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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2026 Copyright by SABIC. All rights reserved