

LNPTTM THERMOCOMPTM COMPOUND MF002AS

MF-1002 HS

REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP MF002AS compound is based on Polypropylene (PP) resin containing 10% glass fiber. Added features of this grade include: Heat Stabilized.

GENERAL INFORMATION

Features	Heat Stabilized, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polypropylene, Unspecified (PP, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY

Consumer
Electrical and Electronics
Industrial
Packaging

SUB INDUSTRY

Sport/Leisure, Personal Accessory
Mobile Phone - Computer - Tablets
Electrical
Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break	45	MPa	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	43	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	34	MPa	ASTM D638
Tensile Strain, break	3.7	%	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3.4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	5.4	%	ASTM D638
Tensile Modulus, 50 mm/min	3250	MPa	ASTM D638
Flexural Stress	68	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	66	MPa	ASTM D790
Flexural modulus	2840	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2600	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	41	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	4.9	%	ISO 527
Tensile Modulus, 1 mm/min	2840	MPa	ISO 527
Flexural Stress	58	MPa	ISO 178
Flexural Modulus, 2 mm/min	2370	MPa	ISO 178
IMPACT ⁽¹⁾			

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched, 23°C	381	J/m	ASTM D4812
Izod Impact, notched, 23°C	43	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	8	J	ASTM D3763
Izod Impact, unnotched 80°10'4 +23°C	24	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	146	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	105	°C	ASTM D648
CTE, -30°C to 30°C, flow	7.6E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.09E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80°10'4 sp=64mm	122	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80°10'4 sp=64mm	74	°C	ISO 75/Af
Relative Temp Index, Elec ⁽²⁾	105	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	105	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	105	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	0.96	-	ASTM D792
Density	0.96	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.02	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽³⁾	1 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
ELECTRICAL ⁽¹⁾			
Hot-Wire Ignition (HWI), PLC 3	≥1.5	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 4	≥0.75	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥0.75	mm	UL 746A
High Voltage Arc Track Rate {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E121562-101284109	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	225 – 250	°C	
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) 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.
- (4) 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.

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 NON-INFRINGEMENT 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.