

LNPTTM THERMOCOMPTM COMPOUND JF003E

JF-1003 EM

DESCRIPTION

LNP THERMOCOMP JF003E compound is based on Polyethersulfone (PES) resin containing 15% glass fiber. Added features of this grade include: Easy Molding.

GENERAL INFORMATION

Features	Good Processability, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyethersulfone (PESU)
Processing Techniques	Injection Molding

INDUSTRY

Building and Construction
Consumer
Electrical and Electronics
Industrial

SUB INDUSTRY

Building Component
Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Mobile Phone - Computer - Tablets
Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break, 5 mm/min	101	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	5660	MPa	ISO 527
Flexural Stress	174	MPa	ISO 178
Flexural Modulus, 2 mm/min	5330	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	107	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Modulus, 5 mm/min	5660	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	174	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	5680	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m ²	ISO 180/1U
Multiaxial Impact	1	J	ISO 6603
Izod Impact, notched, 23°C	43	J/m	ASTM D256
Izod Impact, unnotched, 23°C	500	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	7	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	218	°C	ISO 75/Bf
HDT/ Af, 1.8 MPa Flatw 80*10*4 sp=64mm	211	°C	ISO 75/ Af

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	218	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	210	°C	ASTM D648
CTE, -30°C to 30°C, flow	4.2E-05	1 / °C	ASTM D696
CTE, -30°C to 30°C, xflow	4.7E-05	1 / °C	ASTM D696
PHYSICAL ⁽¹⁾			
Moisture Absorption (23°C / 50% RH)	0.9	%	ISO 62
Specific Gravity	1.49	-	ASTM D792
Density	1.48	g / cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.45	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.6 – 0.8	%	ASTM D955
INJECTION MOLDING ⁽³⁾			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	355 – 370	°C	
Front - Zone 3 Temperature	370 – 380	°C	
Middle - Zone 2 Temperature	360 – 370	°C	
Rear - Zone 1 Temperature	345 – 355	°C	
Mold Temperature	140 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	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.

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.