

LNPTM STAT-KONTM COMPOUND EE005E

EC-1005 EM

REGION ASIA

DESCRIPTION

LNP STAT-KON EE005E compound is based on Polyetherimide (PEI) resin containing 25% carbon fiber. Added features of this grade include: Easy Molding, Electrically Conductive.

GENERAL INFORMATION

Features	Electrically Conductive, Good Processability, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components
Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break	200	MPa	ASTM D638
Tensile Strain, break	2.1	%	ASTM D638
Tensile Modulus, 50 mm/min	12330	MPa	ASTM D638
Flexural Stress	277	MPa	ASTM D790
Flexural Modulus	14320	MPa	ASTM D790
Tensile Stress, break	194	MPa	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	11700	MPa	ISO 527
Flexural Stress	276	MPa	ISO 178
Flexural Modulus	15010	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	448	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	10	J	ASTM D3763
Multiaxial Impact	7	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	29	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	207	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.9E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	2.71E-05	1 / °C	ASTM E831
CTE, -40°C to 40°C, flow	1.92E-05	1 / °C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.71E-05	1 / °C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	207	°C	ISO 75 /Af
PHYSICAL ⁽¹⁾			
Density	1.365	g / cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.16	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.05 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1 – 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.3 – 0.5	%	ISO 294
Density	1.36	g / cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.23	%	ISO 62
ELECTRICAL ⁽¹⁾			
Volume Resistivity ⁽³⁾	1.E+02 – 1.E+06	Ω.cm	ASTM D257
Surface Resistivity ⁽³⁾	1.E+02 – 1.E+05	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 400	°C	
Rear - Zone 1 Temperature	360 – 380	°C	
Middle - Zone 2 Temperature	370 – 390	°C	
Front - Zone 3 Temperature	380 – 400	°C	
Nozzle Temperature	390 – 400	°C	
Mold Temperature	140 – 180	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.2 – 0.3	m/s	
Vent Depth	0.025 – 0.076	mm	

(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) Measurement meets requirements as specified in ASTM D4496.

(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.

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™