

LNPTTM THERMOCOMPTM COMPOUND EC008PXQ

EC008PXQ

DESCRIPTION

LNP THERMOCOMP EC008PXQ compound is based on Polyetherimide (PEI) resin containing 40% carbon fiber. Added features of this grade include: Electrically Conductive, Exceptional Processing, FAR25.853 Compliant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, High Flow, 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	SUB INDUSTRY
Automotive	Automotive Under the Hood, Aerospace
Building and Construction	Building Component
Consumer	Sport/Leisure
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	272	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1	%	ASTM D638
Tensile Modulus, 5 mm/min	38600	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	372	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	32600	MPa	ASTM D790
Hardness, Rockwell M	112	-	ASTM D785
Tensile Stress, break, 5 mm/min	247	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.9	%	ISO 527
Tensile Modulus, 1 mm/min	35480	MPa	ISO 527
Flexural Stress, break, 2 mm/min	364	MPa	ISO 178
Flexural Modulus, 2 mm/min	30560	MPa	ISO 178
Compressive Strength	222	MPa	SABIC method
Shear Modulus	4656	MPa	ASTM D732
Shear Strength	120	MPa	ASTM D732
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	597	J/m	ASTM D4812
Izod Impact, notched, 23°C	74	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	7	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m ²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	193	°C	ASTM D648
CTE, -40°C to 150°C, flow	2.7E-06	1/°C	ASTM E831
CTE, -40°C to 150°C, xflow	3.6E-05	1/°C	ASTM E831
PHYSICAL ⁽¹⁾			
Specific Gravity	1.44	-	ASTM D792
Density	1.43	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.11	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.1 – 0.5	%	ASTM D955
Melt Flow Rate, 380°C/6.7 kgf	15	g/10 min	ASTM D1238
Poisson's Ratio	0.4	-	ASTM E132
ELECTRICAL ⁽¹⁾			
Volume Resistivity	4.5E+02	Ω.cm	ASTM D257
Surface Resistivity	4.1E+03	Ω	ASTM D257
INJECTION MOLDING ⁽³⁾			
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) 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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>



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.