

LNPTTM THERMOCOMPTM COMPOUND EC006PXQ

EC006PXQ

DESCRIPTION

LNP THERMOCOMP EC006PXQ compound is based on Polyetherimide (PEI) resin containing 30% 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 20240201

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Flexural Stress, break, 2 mm/min	334	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	272	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.3 – 1.4	%	ASTM D638
Tensile Modulus, 5 mm/min	29520	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	341	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	23800	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	248	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.2	%	ISO 527
Tensile Modulus, 1 mm/min	27560	MPa	ISO 527
Flexural Modulus, 2 mm/min	23060	MPa	ISO 178
Compressive Strength	244	MPa	SABIC method
Shear Modulus	4726	MPa	ASTM D732
Shear Strength	128	MPa	ASTM D732
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	581	J/m	ASTM D4812
Izod Impact, notched, 23°C	81	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	12	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	195	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 150°C, flow	7.2E-06	1/°C	ASTM E831
CTE, -40°C to 150°C, xflow	5.8E-05	1/°C	ASTM E831
PHYSICAL ⁽¹⁾			
Specific Gravity	1.39	-	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 – 0.6	%	ASTM D955
Melt Flow Rate, 380°C/6.7 kgf	22	g/10 min	ASTM D1238
Poisson's Ratio	0.44	-	ASTM E132
ELECTRICAL ⁽¹⁾			
Surface Resistivity	1.E+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.

MORE INFORMATION

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

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