LNP™ THERMOCOMP™ COMPOUND LC006EXQ

LC006EXQ

DESCRIPTION

LNP THERMOCOMP LC006EXQ compound is based on Polyetheretherketone (PEEK) resin containing 30% carbon fiber. Added features of this grade include: Electrically Conductive, Easy Molding.

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	Polyetheretherketone (PEEK)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	314	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.7	%	ASTM D638
Tensile Modulus, 5 mm/min	31700	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	477	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	27100	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	319	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.5	%	ISO 527
Tensile Modulus, 1 mm/min	35320	MPa	ISO 527
Flexural Stress	457	MPa	ISO 178
Flexural Modulus, 2 mm/min	27230	MPa	ISO 178
Shear Modulus	4756	MPa	ASTM D732
Shear Strength	119	MPa	ASTM D732
IMPACT [1]			
Izod Impact, unnotched, 23°C	936	J/m	ASTM D4812
Izod Impact, notched, 23°C	75	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	6	J	ASTM D3763
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	332	°C	ASTM D648
CTE, -40°C to 150°C, flow	5.E-06	1/°C	ASTM E831
CTE, -40°C to 150°C, xflow	3.E-05	1/°C	ASTM E831
PHYSICAL [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Specific Gravity	1.4	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.05	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.15 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.7 – 1.4	%	ASTM D955
Poisson's Ratio	0.44	-	ASTM E132
ELECTRICAL [1]			
Surface Resistivity	1.E+03 – 1.E+04	Ω	ASTM D257
INJECTION MOLDING [3]			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Front - Zone 3 Temperature	380 – 400	°C	
Middle - Zone 2 Temperature	380 – 400	°C	
Rear - Zone 1 Temperature	370 – 380	°C	
Mold Temperature	175 – 190	°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.