

LNPT[™] THERMOCOMP[™] COMPOUND LC008EXQ

LC008EXQ

DESCRIPTION

LNP THERMOCOMP LC008EXQ compound is based on Polyetheretherketone (PEEK) resin containing 40% 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
Automotive	Automotive Under the Hood, Aerospace
Building and Construction	Building Component
Consumer	Sport/Leisure
Industrial	Electrical

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	330	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.5	%	ASTM D638
Tensile Modulus, 5 mm/min	41480	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	492	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	35200	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	321	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.4	%	ISO 527
Tensile Modulus, 1 mm/min	40420	MPa	ISO 527
Flexural Stress	460	MPa	ISO 178
Flexural Modulus, 2 mm/min	33820	MPa	ISO 178
Compressive Strength	215	MPa	SABIC method
Shear Modulus	5003	MPa	ASTM D732
Shear Strength	126	MPa	ASTM D732
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	863	J/m	ASTM D4812
Izod Impact, notched, 23°C	82	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	7	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	335	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL ⁽¹⁾			
Specific Gravity	1.44	-	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	0.47	-	ASTM E132
ELECTRICAL ⁽¹⁾			
Surface Resistivity	1.E+02 – 1.E+03	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.

MORE INFORMATION

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