LNP™ THERMOCOMP™ COMPOUND LX08411

LX08411

DESCRIPTION

LNP THERMOCOMP LX08411 compound is based on Polyetheretherketone (PEEK) resin containing 45% carbon fiber. Added features of this grade include: Electrically Conductive, High Modulus, Easy Molding.

GENERAL INFORMATION	
Features	Electrically Conductive, Good Processability, Carbon fiber filled, High stiffness/Strength, High temperature resistance
Fillers	Carbon Fiber
Polymer Types	Polyetheretherketone (PEEK)
Processing Techniques	Injection Molding

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

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	270	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	270	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	1.8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.8	%	ASTM D638
Tensile Modulus, 50 mm/min	23510	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	366	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	366	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	25000	MPa	ASTM D790
IMPACT [1]			
Izod Impact, unnotched, 23°C	775	J/m	ASTM D4812
Izod Impact, notched, 23°C	70	J/m	ASTM D256
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	341	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	327	°C	ASTM D648
PHYSICAL [1]			
Density	1.45	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.03	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.2 – 0.28	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.75 – 0.85	%	ASTM D955
INJECTION MOLDING [3]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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.

DISCLAIMER