LNP™ THERMOCOMP™ Compound LC00APXQ

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound LC00APXQ
Product reorder name: LC00APXQ

LNP THERMOCOMP LC00APXQ is a compound based on Polyetheretherketone resin containing 50% Carbon Fiber. Added features of this material include: Exceptional Processing, Electrically Conductive.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	3340	kgf/cm²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.2	%	ASTM D 638
Tensile Modulus, 5 mm/min	507800	kgf/cm²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	5140	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	412900	kgf/cm²	ASTM D 790
Tensile Stress, break, 5 mm/min	320	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.1	%	ISO 527
Tensile Modulus, 1 mm/min	47400	MPa	ISO 527
Flexural Stress	473	MPa	ISO 178
Flexural Modulus, 2 mm/min	40730	MPa	ISO 178
Shear Strength	1162	kgf/cm²	ASTM C 273
Shear Modulus	52890	kgf/cm²	ASTM C 273
IMPACT			
Izod Impact, unnotched, 23°C	78	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	7	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	76	cm-kgf	ASTM D 3763
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	335	°C	ASTM D 648
CTE, -40°C to 150°C, flow	2.E-06	1/°C	ASTM E 831
CTE, -40°C to 150°C, xflow	2.E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.48	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.03	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.13 - 0.25	%	ASTM D 955

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) 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.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Mold Shrinkage, xflow, 24 hrs (5)	0.6 - 1.3	%	ASTM D 955
ELECTRICAL			
Surface Resistivity	1.E+02 - 1.E+03	Ohm	ASTM D 257

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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

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