LNP™ LUBRICOMP™ COMPOUND LCL36E

LCL-4036 EM
REGION AMERICAS

DESCRIPTION

LNP LUBRICOMP LCL36E compound is based on Polyetheretherketone (PEEK) resin containing 30% carbon fiber and 15% PTFE. Added features of this grade include: Easy Molding, Wear Resistant, Electrically Conductive.

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

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260205

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	208	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.6	%	ASTM D638
Tensile Modulus, 5 mm/min	21440	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	357	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	23000	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	140	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1	%	ISO 527
Tensile Modulus, 1 mm/min	17520	MPa	ISO 527
Flexural Stress	321	MPa	ISO 178
Flexural Modulus, 2 mm/min	22720	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	651	J/m	ASTM D4812
Izod Impact, notched, 23°C	83	J/m	ASTM D256
Multiaxial Impact	3	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	11	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	40	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	342	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	332	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.4E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	2.9E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	342	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	329	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.51	-	ASTM D792
Density	1.5	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.04	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.31	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.81	%	ASTM D955
Wear Factor Washer	18	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	1	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.38	-	ASTM D3702 Modified: Manual
Static COF	0.38	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
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.

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