

LNPTM LUBRICOMPTM COMPOUND LX19222

DESCRIPTION

LNP LUBRICOMP LX19222 compound is based on Polyetheretherketone (PEEK) resin containing proprietary fillers. Added features of this grade include: Easy Molding, High Temperature Bearing, Excellent Wear Resistance and Low CTE.

GENERAL INFORMATION	
Features	Good Processability, Wear resistant, Dimensional stability, High temperature resistance
Fillers	Unreinforced
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 20241017

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Flexural Strength, 1.3 mm/min, 50 mm span	220	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9800	MPa	ASTM D790
Tensile Stress, brk, Type I, 5 mm/min	150	MPa	ASTM D638
Tensile Modulus, 5 mm/min	12000	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D638
Flexural Strength, 2 mm/min	215	MPa	ISO 178
Flexural Modulus, 2 mm/min	10500	MPa	ISO 178
Tensile Stress, break, 5 mm/min	150	MPa	ISO 527
Tensile Modulus, 1 mm/min	12000	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	55	J/m	ASTM D256
Izod Impact, unnotched, 23°C	480	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	5.7	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	5.1	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	35	kJ/m ²	ISO 179/1eU
Multiaxial Impact	8.9	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	300	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	335	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	292	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	331	°C	ISO 75/Bf
CTE, -40°C to 120°C, flow	1.4e-05	1/°C	ASTM E831
CTE, -40°C to 120°C, xflow	4.4e-05	1/°C	ASTM E831
PHYSICAL ⁽¹⁾			
Dynamic COF	0.3	-	ASTM D3702 Modified: Manual
Static COF	0.33	-	ASTM D3702 Modified: Manual
Wear Factor Ring	5	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Specific Gravity	1.44	-	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.2 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.5 – 0.7	%	ASTM D955
Density	1.44	g/cm ³	ASTM D792
Moisture Absorption (23°C / 50% RH)	<0.1	%	ISO 62
INJECTION MOLDING ⁽³⁾			
Drying Temperature	120 – 150	°C	
Drying Time	3 – 5	Hrs	
Nozzle Temperature	380 – 400	°C	
Melt Temperature	380 – 400	°C	
Front - Zone 3 Temperature	370 – 380	°C	
Middle - Zone 2 Temperature	360 – 370	°C	
Rear - Zone 1 Temperature	290 – 300	°C	
Mold Temperature	170 – 200	°C	
Screw Speed	50 – 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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