LNP™ LUBRICOMP™ COMPOUND LCL33

LCL-4033
REGION EUROPE

DESCRIPTION

LNP LUBRICOMP LCL33 compound is based on Polyetheretherketone (PEEK) resin containing 15% carbon fiber, 15% PTFE. Added features of this grade include: 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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	162	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.9	%	ISO 527
Tensile Modulus, 1 mm/min	14500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	230	MPa	ISO 178
Flexural Strain, break, 2 mm/min	2.7	%	ISO 178
Flexural Modulus, 2 mm/min	11700	MPa	ISO 178
Flexural Strain, break, 2 mm/min, 80°C	2.7	%	ISO 178
Flexural Strain, break, 2 mm/min, 120°C	2.7	%	ISO 178
Flexural Strain, break, 2 mm/min, 150°C	6	%	ISO 178
Flexural Strain, break, 2 mm/min, 200°C	6.3	%	ISO 178
Flexural Strain, break, 2 mm/min, 250°C	6.5	%	ISO 178
Flexural Stress, yield, 2 mm/min, 80°C	192	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 120°C	158	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 150°C	100	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 200°C	60	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 250°C	50	MPa	ISO 178
Flexural Modulus, 2 mm/min, 80°C	10300	MPa	ISO 178
Flexural Modulus, 2 mm/min, 120°C	10200	MPa	ISO 178
Flexural Modulus, 2 mm/min, 150°C	5700	MPa	ISO 178

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Flexural Modulus, 2 mm/min, 200°C	3000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched 80*10*4 +23°C	34	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, 23°C to 60°C, flow	9.5E-06	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	5.3E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	>300	°C	ISO 75/Af
PHYSICAL [1]			
Wear Factor Washer	17	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.35	-	ASTM D3702 Modified: Manual
Static COF	0.28	-	ASTM D3702 Modified: Manual
Density	1.43	g/cm³	ISO 1183
Melt Volume Rate, MVR at 400°C/10.0 kg	6 – 8	cm³/10 min	ISO 1133
ELECTRICAL [1]			
Surface Resistivity	1.E+03 – 1.E+05	Ω	ASTM D257
INJECTION MOLDING [2]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	380 – 390	°C	
Front - Zone 3 Temperature	380 – 395	°C	
Middle - Zone 2 Temperature	365 – 375	°C	
Rear - Zone 1 Temperature	350 – 360	°C	
Mold Temperature	140 – 165	°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) 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