LNP™ LUBRICOMP™ COMPOUND LCL33E

LCL-4033 EM

DESCRIPTION

LNP LUBRICOMP* LCL33E is a compound based on Polyetheretherketone resin containing 15% Carbon Fiber, 15% PTFE. Added features of this material include: Easy Molding, Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20200109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	179	MPa	ASTM D 638
Tensile Strain, break	1.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	16610	MPa	ASTM D 638
Flexural Stress	266	MPa	ASTM D 790
Flexural Modulus	12960	MPa	ASTM D 790
Tensile Stress, break	187	MPa	ISO 527
Tensile Strain, break	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	14700	MPa	ISO 527
Flexural Stress	275	MPa	ISO 178
Flexural Modulus	14700	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	491	J/m	ASTM D 4812
Izod Impact, notched, 23°C	64	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	8	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	34	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	>298	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.37E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.17E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.36E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.17E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	>240	°C	ISO 75/Af
PHYSICAL			
Density	1.43	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.07	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1 – 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.4 – 0.7	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.1 – 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.3 – 0.7	%	ISO 294
Wear Factor Washer	13	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.35	-	ASTM D 3702 Modified: Manual
Static COF	0.28	-	ASTM D 3702 Modified: Manual
Density	1.43	g/cm³	ISO 1183

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.7	%	ISO 62
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E121562-101283895	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
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	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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