

LNPTTM LUBRICOMPTM COMPOUND IFL36L

IFL-4036 LE

DESCRIPTION

LNP LUBRICOMP IFL36L compound is based on Nylon 6/12 resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Low Extractable, Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, Food contact, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polyamide 612 (Nylon 612)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	127	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.6	%	ASTM D638
Tensile Modulus, 50 mm/min	9400	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	193	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	192	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7910	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	124	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.8	%	ISO 527
Tensile Modulus, 1 mm/min	8690	MPa	ISO 527
Flexural Stress	189	MPa	ISO 178
Flexural Modulus, 2 mm/min	7410	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	849	J/m	ASTM D4812
Izod Impact, notched, 23°C	103	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	8	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	48	kJ/m²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	213	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	197	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	3.1E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	9.9E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	211	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	195	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.44	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.13	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Wear Factor Washer	3	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	-1	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.61	-	ASTM D3702 Modified: Manual
Static COF	0.59	-	ASTM D3702 Modified: Manual
Density	1.43	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	270 – 275	°C	
Front - Zone 3 Temperature	270 – 280	°C	
Middle - Zone 2 Temperature	260 – 270	°C	
Rear - Zone 1 Temperature	255 – 265	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	