LNP™ LUBRICOMP™ COMPOUND GFL36L

GFL-4036 LE

DESCRIPTION

LNP LUBRICOMP GFL36L compound is based on Polysulfone (PSU) 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, High temperature resistance
Fillers	Glass Fiber, PTFE
Polymer Types	Polysulfone (PSU)
Processing Techniques	Injection Molding

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

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	87	MPa	ISO 527
Tensile Stress, break	87	MPa	ISO 527
Tensile Strain, yield	1.3	%	ISO 527
Tensile Strain, break	1.2	%	ISO 527
Tensile Modulus, 1 mm/min	9330	MPa	ISO 527
Flexural Stress	121	MPa	ISO 178
Flexural Modulus	9000	MPa	ISO 178
Tensile Stress, yield	88	MPa	ASTM D638
Tensile Stress, break	88	MPa	ASTM D638
Tensile Strain, yield	1.3	%	ASTM D638
Tensile Strain, break	1.3	%	ASTM D638
Tensile Modulus, 50 mm/min	10340	MPa	ASTM D638
Flexural Stress	110	MPa	ASTM D790
Flexural Modulus	8960	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	23	kJ/m²	ISO 180/1U
Multiaxial Impact	3	J	ISO 6603
Izod Impact, notched, 23°C	74	J/m	ASTM D256
Izod Impact, unnotched, 23°C	341	J/m	ASTM D4812
Instrumented Dart Impact Energy @ peak, 23°C	14	J	ASTM D3763

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	186	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	181	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	2.40E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.0E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	185	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	180	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.06E-05	1/°C	ASTM E831
PHYSICAL [1]			
Density	1.62	g/cm³	ISO 1183
Mold Shrinkage, flow, 24 hrs [2]	0.26	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.51	%	ISO 294
Density	1.62	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.4 – 0.6	%	ASTM D955
Wear Factor Washer	44	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.42	-	ASTM D3702 Modified: Manual
Static COF	0.62	-	ASTM D3702 Modified: Manual
INJECTION MOLDING [3]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	360 – 370	°C	
Front - Zone 3 Temperature	350 – 360	°C	
Middle - Zone 2 Temperature	340 – 350	°C	
Rear - Zone 1 Temperature	325 – 340	°C	
Mold Temperature	150	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	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.

DISCLAIMER