LNP™ LUBRICOMP™ COMPOUND PFL36

PFL-4036
REGION ASIA

DESCRIPTION

LNP LUBRICOMP PFL36 compound is based on Nylon 6 resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polyamide 6 (Nylon 6)
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, yield, 5 mm/min	155	MPa	ISO 527
Tensile Stress, break, 5 mm/min	155	MPa	ISO 527
Tensile Modulus, 1 mm/min	10200	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.9	%	ISO 527
Tensile Strain, break, 5 mm/min	3.2	%	ISO 527
Flexural Stress, yield, 2 mm/min	235	MPa	ISO 178
Flexural Stress, break, 2 mm/min	235	MPa	ISO 178
Flexural Modulus, 2 mm/min	8600	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	150	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	150	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3.3	%	ASTM D638
Tensile Modulus, 5 mm/min	10100	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	215	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	210	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7500	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	75	kJ/m²	ISO 180/1U
Izod Impact, notched, 23°C	95	J/m	ASTM D256

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched, 23°C	1000	J/m	ASTM D4812
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	11	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	75	kJ/m²	ISO 179/1eU
THERMAL [1]			
Vicat Softening Temp, Rate B/50	210	°C	ISO 306
Vicat Softening Temp, Rate B/50	210	°C	ASTM D1525
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	215	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	200	°C	ISO 75/Af
HDT, 0.45 MPa, 3.2 mm, unannealed	215	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	205	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.4E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.6E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, flow	2.4E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	9.6E-05	1/°C	ASTM E831
PHYSICAL [1]			
Mold Shrinkage, flow [2] [3]	0.1	%	SABIC method
Mold Shrinkage, xflow [2] [3]	0.7	%	SABIC method
Wear Factor Washer	18	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.67	-	ASTM D3702 Modified: Manual
Static COF	0.87	-	ASTM D3702 Modified: Manual
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	265 – 275	°C	
Front - Zone 3 Temperature	275 – 290	°C	
Middle - Zone 2 Temperature	265 – 275	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.3 – 0.7	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) mold shrinkage measured on 60x60x2mm plaques

(3) 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.

(4) 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