

LNPT[™] LUBRICOMP[™] COMPOUND PFL38S

PFL-4038 HS
REGION EUROPE

DESCRIPTION

LNP LUBRICOMP PFL38S compound is based on Nylon 6 resin containing 40% glass fiber, 15% PTFE. Added features of this grade include: Heat Stabilized, Wear Resistant

GENERAL INFORMATION	
Features	Heat Stabilized, 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, break, 5 mm/min	172	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.5	%	ISO 527
Tensile Modulus, 1 mm/min	13500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	251	MPa	ISO 178
Flexural Stress, break, 2 mm/min	244	MPa	ISO 178
Flexural Strain, break, 2 mm/min	3.6	%	ISO 178
Flexural Modulus, 2 mm/min	11600	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched 80*10*4 +23°C	65	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
CTE, 23°C to 60°C, flow	3.3E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	9.2E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	216	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	203	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Mold Shrinkage, flow ⁽²⁾	0.1 – 0.3	%	SABIC method
Wear Factor Washer	8	10 ⁻⁴ -10 ⁻⁵ in ³ -min/ft-lb-hr	ASTM D3702 Modified: Instr.
Dynamic COF	0.63	-	ASTM D3702 Modified: Instr.

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Static COF	1.1	-	ASTM D3702 Modified: Instr.
Density	1.61	g/cm ³	ISO 1183
Water Absorption, (23°C/24hrs)	0.6	%	ISO 62-1
INJECTION MOLDING ⁽³⁾			
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) 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.

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