LNP™ LUBRICOMP™ COMPOUND PFL36

PFL-4036
REGION ASIA

DESCRIPTION

LNP LUBRICOMP PFL36 is a compound based on Nylon 6 resin containing 30% Glass Fiber, 15% PTFE. Added features of this material include: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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 D 638
Tensile Stress, brk, Type I, 5 mm/min	150	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.3	%	ASTM D 638
Tensile Modulus, 5 mm/min	10100	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	215	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	210	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	7500	MPa	ASTM D 790
IMPACT			
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 D 256
Izod Impact, unnotched, 23°C	1000	J/m	ASTM D 4812
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			
Vicat Softening Temp, Rate B/50	210	°C	ISO 306
Vicat Softening Temp, Rate B/50	210	°C	ASTM D 1525
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 D 648
HDT, 1.82 MPa, 3.2mm, unannealed	205	°C	ASTM D 648
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 E 831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	9.6E-05	1/°C	ASTM E 831
PHYSICAL			
Mold Shrinkage, flow [1]	0.1	%	SABIC method
Mold Shrinkage, xflow [1]	0.7	%	SABIC method
Wear Factor Washer	18	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.67	-	ASTM D 3702 Modified: Manual
Static COF	0.87	-	ASTM D 3702 Modified: Manual
INJECTION MOLDING			
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) mold shrinkage measured on 60x60x2mm plaques

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