

# LNPT<sup>™</sup> LUBRICOMP<sup>™</sup> COMPOUND WFL36E

WFL-4036 EM

## DESCRIPTION

LNP LUBRICOMP WFL36E compound is based on Polybutylene Terephthalate (PBT) resin containing 30% glass fiber and 15% PTFE. Added features of this grade include: Easy Molding and Wear Resistant.

GENERAL INFORMATION	
Features	Good Processability, Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polybutylene Terephthalate (PBT)
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
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, break, 5 mm/min	114	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	10100	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	175	MPa	ISO 178
Flexural Stress, break, 2 mm/min	172	MPa	ISO 178
Flexural Strain, break, 2 mm/min	2.7	%	ISO 178
Flexural Modulus, 2 mm/min	9500	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
CTE, 23°C to 60°C, flow	2.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.2E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	220	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	207	°C	ISO 75/Af
Relative Temp Index, Elec <sup>(2)</sup>	75	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	75	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	75	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Mold Shrinkage, flow <sup>(3)</sup>	0.1 – 0.3	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Wear Factor Washer	24	10 <sup>4</sup> -10 in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Instr.
Dynamic COF	0.54	-	ASTM D3702 Modified: Instr.
Static COF	0.58	-	ASTM D3702 Modified: Instr.
Density	1.7	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/24hrs)	0.04	%	ISO 62-1
<b>ELECTRICAL <sup>(1)</sup></b>			
Hot-Wire Ignition (HWI), PLC 0	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 1	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 0	≥1.5	mm	UL 746A
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E45329-101284059</a>	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(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.

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