

# LNPT<sup>™</sup> LUBRICOMP<sup>™</sup> COMPOUND DFL28EG

DFL-4028 EM MG

## DESCRIPTION

LNP LUBRICOMP DFL28EG compound is based on Polycarbonate (PC) resin containing 40% glass fiber/milled glass and 10% PTFE. Added features of this grade include: Wear Resistant, Easy Molding.

GENERAL INFORMATION	
Features	Good Processability, Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, Milled Glass Fiber, PTFE
Polymer Types	Polycarbonate (PC)
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, yield, 5 mm/min	116	MPa	ISO 527
Tensile Stress, break, 5 mm/min	116	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.9	%	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	10180	MPa	ISO 527
Flexural Strength, 2 mm/min	174	MPa	ISO 178
Flexural Modulus, 2 mm/min	9780	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	115	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	115	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	1.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.9	%	ASTM D638
Tensile Modulus, 5 mm/min	11000	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	176	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9860	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	640	J/m	ASTM D4812
Izod Impact, notched, 23°C	110	J/m	ASTM D256
Multiaxial Impact	4	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	19	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	40	kJ/m <sup>2</sup>	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	12	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	141	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	140	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.62	-	ASTM D792
Density	1.63	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.08	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.2 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.3 – 0.6	%	ASTM D955
Wear Factor Washer	45	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	2	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.61	-	ASTM D3702 Modified: Manual
Static COF	0.57	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°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.

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