

## LNP\* Lubricomp\* Compound DL0039EF

### Americas: COMMERCIAL

Also known as: LNP\* Lubricomp\* Compound DL-4030 FR

Product reorder name: DL0039EF

LNP\* Lubricomp\* DL-0039EF is a compound based on Polycarbonate resin containing PTFE. Characteristics of this grade include: Flame Retardant and Internally Lubricated.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	540	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	440	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	22	%	ASTM D 638
Tensile Modulus, 5 mm/min	22500	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	22800	kgf/cm <sup>2</sup>	ASTM D 790
Tensile Stress, yield, 5 mm/min	52	MPa	ISO 527
Tensile Stress, break, 5 mm/min	44	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.5	%	ISO 527
Tensile Strain, break, 5 mm/min	27	%	ISO 527
Tensile Modulus, 1 mm/min	2090	MPa	ISO 527
Flexural Stress	77	MPa	ISO 178
Flexural Modulus, 2 mm/min	2090	MPa	ISO 178
<b>IMPACT</b>			
Multiaxial Impact	356	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	367	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80°10*4 +23°C	1740	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10*4 +23°C	142	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	126	°C	ASTM D 648
CTE, -30°C to 30°C, flow	7.5E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	7.6E-05	1/°C	ASTM D 696

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23±176.C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.  
 (3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.  
 (4) Internal measurements according to UL standards.  
 (5) 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.

Source GMD, last updated:

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TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>THERMAL</b>			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	137	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	125	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.31	-	ASTM D 792
Density	1.3	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.11	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.6 - 0.8	%	ASTM D 955
Wear Factor Washer	6	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	0	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.35	-	ASTM D 3702 Modified
Static COF	0.18	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
<b>Injection Molding</b>		
Drying Temperature	120	°C
Drying Time	4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	300 - 315	°C
Front - Zone 3 Temperature	310 - 320	°C
Middle - Zone 2 Temperature	305 - 315	°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

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