

LNP* Lubricomp* Compound ZFL34 Americas: COMMERCIAL

LNP* Lubricomp* ZFL34 is a compound based on Modified PPO containing glass fiber and PTFE.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	980	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	980	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	1.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	73500	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1370	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1370	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	69200	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	91	MPa	ISO 527
Tensile Stress, break, 5 mm/min	91	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.8	%	ISO 527
Tensile Strain, break, 5 mm/min	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	6810	MPa	ISO 527
Flexural Stress	136	MPa	ISO 178
Flexural Stress, break, 2 mm/min	136	MPa	ISO 178
Flexural Modulus, 2 mm/min	6430	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	52	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	10	cm-kgf/cm	ASTM D 256
Multiaxial Impact	29	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	130	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80°10*4 +23°C	30	kJ/m ²	ISO 180/1U

(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 ¹	TYPICAL VALUE	Unit	Standard
IMPACT			
Izod Impact, notched 80*10*4 +23°C	10	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	138	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	133	°C	ASTM D 648
CTE, -30°C to 30°C, flow	6.14E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	4.56E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	133	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.32	-	ASTM D 792
Density	1.32	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.06	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.1 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Wear Factor Washer	93	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.44	-	ASTM D 3702 Modified
Static COF	0.59	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	4	hrs
Melt Temperature	300 - 305	°C
Front - Zone 3 Temperature	300 - 310	°C
Middle - Zone 2 Temperature	290 - 300	°C
Rear - Zone 1 Temperature	275 - 290	°C
Mold Temperature	80 - 110	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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