

LNP Lubricomp* ZFL-4031 HP NATURAL

Polyphenylene Ether + PS

General

Filler / Reinforcement	• Glass Fiber Reinforcement
Additive	• PTFE Lubricant
Features	• Lubricated
Forms	• Pellets
Processing Method	• Injection Molding

Physical

	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.21	g/cm ³	ASTM D792A
--	1.20	g/cm ³	ISO 1183
Molding Shrinkage			
Flow: 24 hr	0.60 to 0.80	%	ASTM D955
Across Flow: 24 hr	0.60 to 0.80	%	ASTM D955
Across Flow: 24 hr	0.71	%	ISO 294-4
Flow: 24 hr	0.66	%	ISO 294-4
Water Absorption (24 hr)	0.0	%	ASTM D570

Mechanical

	Nominal Value	Unit	Test Method
Tensile Modulus			
--	4140	MPa	ASTM D638
--	3640	MPa	ISO 527-2
Tensile Strength			
Yield	60.0	MPa	ASTM D638 ISO 527-2
Break	59.3	MPa	ASTM D638
Break	60.0	MPa	ISO 527-2
Tensile Elongation			
Yield	2.8	%	ASTM D638 ISO 527-2
Break	3.5	%	ASTM D638
Break	3.2	%	ISO 527-2
Flexural Modulus			
--	3450	MPa	ASTM D790
--	4800	MPa	ISO 178
Flexural Strength			
--	103	MPa	ASTM D790
--	89.0	MPa	ISO 178
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.40		
vs. Steel - Static	0.27		

Impact

	Nominal Value	Unit	Test Method
Notched Izod Impact			
3.18 mm	80.1	J/m	ASTM D256
--	7.00	kJ/m ²	ISO 180
Unnotched Izod Impact			
3.18 mm	379	J/m	ASTM D256
--	24.4	kJ/m ²	ISO 180
Instrumented Dart Impact			
--	12.0	J	ASTM D3763
--	2.80	J	ISO 6603-2

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SABIC Innovative Plastics

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	136	°C	ASTM D648
0.45 MPa, Unannealed	134	°C	ISO 75-2/B
1.8 MPa, Unannealed	127	°C	ASTM D648 ISO 75-2/A
CLTE			
Flow	0.000068	cm/cm/°C	ASTM E831
Flow	0.000069	cm/cm/°C	ISO 11359-2
Transverse	0.000067	cm/cm/°C	ASTM E831
Transverse	0.000066	cm/cm/°C	ISO 11359-2

Additional Information

COEFFICIENT OF FRICTION vs. Steel, Dynamic @ 40 psi, 50 ft/min, LNP WI-0687: 0.4

COEFFICIENT OF FRICTION vs. Steel, Static @ 40 psi, LNP WI-0687: 0.265

WEAR FACTOR @ 40 psi, 50 ft/min, LNP WI-0687: 100.5 10⁻¹⁰ in⁵-min/ft-lb-hr

Injection	Nominal Value	Unit
Drying Temperature	121	°C
Drying Time	4.0	hr
Processing (Melt) Temp	296 to 302	°C
Mold Temperature	79.4 to 107	°C
Back Pressure	0.172 to 0.345	MPa

Notes

¹ Typical properties: these are not to be construed as specifications.