

LNPT[™] LUBRICOMP[™] COMPOUND FL004

FL-4040

REGION AMERICAS

DESCRIPTION

LNP LUBRICOMP FL004 compound is based on Polyethylene (PE) resin containing 20% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Unreinforced, PTFE
Polymer Types	Polyethylene, Unspecified (PE, Unspecified)
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
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	23	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	12	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	8.2	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	148	%	ASTM D638
Tensile Modulus, 5 mm/min	1240	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	20	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	930	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	23	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	7.9	%	ISO 527
Tensile Strain, break, 5 mm/min	78	%	ISO 527
Tensile Modulus, 1 mm/min	1000	MPa	ISO 527
Flexural Strength, 2 mm/min	19	MPa	ISO 178
Flexural Modulus, 2 mm/min	930	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1030	J/m	ASTM D4812
Izod Impact, notched, 23°C	37	J/m	ASTM D256
Multiaxial Impact	7	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	13	J	ASTM D3763
Izod Impact, unnotched 80°10'4 +23°C	100	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10'4 +23°C	3	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	74	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	53	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.21E-04	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.37E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	82	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	59	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.08	-	ASTM D792
Density	1.08	g/cm ³	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽²⁾	3 – 5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Wear Factor Washer	9	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	-1	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.17	-	ASTM D3702 Modified: Manual
Static COF	0.11	-	ASTM D3702 Modified: Manual
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	2 – 4	Hrs	
Melt Temperature	230	°C	
Front - Zone 3 Temperature	220 – 230	°C	
Middle - Zone 2 Temperature	210 – 220	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	40 – 55	°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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.