

LNPT[™] LUBRICOMP[™] COMPOUND WFL34H

WFL-4034 HC

REGION AMERICAS

DESCRIPTION

LNP LUBRICOMP WFL34H compound is based on Polybutylene Terephthalate (PBT) resin containing 20% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant, Healthcare.

GENERAL INFORMATION	
Features	Wear resistant, Healthcare/Formula lock
Fillers	Glass Fiber, PTFE
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break	120	MPa	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	123	MPa	ASTM D638
Tensile Strain, break	2.8	%	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.7	%	ASTM D638
Tensile Modulus, 50 mm/min	8400	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	177	MPa	ASTM D790
Flexural Modulus	6840	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	121	MPa	ISO 527
Tensile Stress, break, 50 mm/min	121	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	2.7	%	ISO 527
Tensile Strain, break, 50 mm/min	2.6	%	ISO 527
Tensile Modulus, 1 mm/min	8460	MPa	ISO 527
Flexural Stress	182	MPa	ISO 178
Flexural Modulus, 2 mm/min	7500	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	780	J/m	ASTM D4812
Izod Impact, notched, 23°C	86	J/m	ASTM D256
Multiaxial Impact	3	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	9	J	ASTM D3763
Izod Impact, unnotched 80°10°3 +23°C	46	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	9	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	223	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	214	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	223	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	209	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.59	-	ASTM D792
Density	1.59	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.05	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.4 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.9 – 2	%	ASTM D955
Wear Factor Washer	35	10 ⁻⁴ -10 in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.47	-	ASTM D3702 Modified: Manual
Static COF	0.46	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62
INJECTION MOLDING ⁽³⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°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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