LNP™ LUBRICOMP™ COMPOUND ZFL34

ZFL-4034

DESCRIPTION

LNP LUBRICOMP ZFL34 compound is based on Polyphenylene Ether / Polystyrene (PPE/PS) blend containing 20% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Glass Fiber, PTFE
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component, Water Management
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	96	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	96	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	1.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.7	%	ASTM D638
Tensile Modulus, 50 mm/min	7210	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	135	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	135	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6790	MPa	ASTM D790
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 [1]			
Izod Impact, unnotched, 23°C	516	J/m	ASTM D4812
Izod Impact, notched, 23°C	99	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart Impact Total Energy, 23°C	12	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	138	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	133	°C	ASTM D648
CTE, -30°C to 30°C, flow	4.60E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	6.10E-05	1/°C	ASTM D696
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 [1]			
Specific Gravity	1.32	-	ASTM D792
Density	1.32	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.06	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.4 – 0.6	%	ASTM D955
Wear Factor Washer	93	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.44	-	ASTM D3702 Modified: Manual
Static COF	0.59	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E121562-101282560	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [4]			
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	

(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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(4) 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

CHEMISTRY THAT MATTERS™