LNP™ LUBRICOMP™ COMPOUND AL0039

AL-4030 FR-1

DESCRIPTION

LNP LUBRICOMP AL0039 compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing 15% PTFE. Added features of this grade include: Flame Retardant, Wear Resistant.

GENERAL INFORMATION	
Features	Flame Retardant, Wear resistant
Fillers	Unreinforced, PTFE
Polymer Types	Acrylonitrile Butadiene Styrene (ABS)
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	38	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	35	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	7.8	%	ASTM D638
Tensile Modulus, 5 mm/min	2420	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	69	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2480	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	37	MPa	ISO 527
Tensile Stress, break, 5 mm/min	34	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.3	%	ISO 527
Tensile Strain, break, 5 mm/min	8.5	%	ISO 527
Tensile Modulus, 1 mm/min	2250	MPa	ISO 527
Flexural Modulus, 2 mm/min	2340	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	230	J/m	ASTM D4812
Izod Impact, notched, 23°C	27	J/m	ASTM D256
Multiaxial Impact	1	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	2	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	15	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	2	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	95	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	84	°C	ASTM D648
CTE, -30°C to 30°C, flow	9.4E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	8.9E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	96	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	84	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.26	-	ASTM D792
Density	1.26	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.23	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.6 – 0.8	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.7 – 0.9	%	ASTM D955
Wear Factor Washer	107	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	0	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.24	-	ASTM D3702 Modified: Manual
Static COF	0.12	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.33	%	ISO 62
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05 – 0.1	%	
Melt Temperature	260	°C	
Front - Zone 3 Temperature	265 – 275	°C	
Middle - Zone 2 Temperature	230 – 245	°C	
Rear - Zone 1 Temperature	205 – 215	°C	
Mold Temperature	70 – 80	°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