LNP™ LUBRICOMP™ COMPOUND AL0039

AL-4030 FR-1

DESCRIPTION

LNP* LUBRICOMP* AL0039 is a compound based on ABS containing 15% PTFE. Added features of this material include: Flame Retardant, Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191211

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	38	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	35	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	7.8	%	ASTM D 638
Tensile Modulus, 5 mm/min	2420	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	69	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2480	MPa	ASTM D 790
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			
Izod Impact, unnotched, 23°C	230	J/m	ASTM D 4812
Izod Impact, notched, 23°C	27	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	2	J	ASTM D 3763
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
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	95	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	84	°C	ASTM D 648
CTE, -30°C to 30°C, flow	9.4E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	8.9E-05	1/°C	ASTM D 696
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			
Specific Gravity	1.26	-	ASTM D 792
Density	1.26	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.23	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.6 – 0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.7 – 0.9	%	ASTM D 955
Wear Factor Washer	107	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Wear Factor Ring	0	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.24	-	ASTM D 3702 Modified: Manual
Static COF	0.12	-	ASTM D 3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.33	%	ISO 62
INJECTION MOLDING			
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	

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