LNP™ LUBRICOMP™ COMPOUND AI001XXH

DESCRIPTION

LNP LUBRICOMP AI001XXH compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing 2% silicone. Added features of this grade include: Healthcare, Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, Healthcare/Formula lock, No PFAS intentionally added
Fillers	Unreinforced, Silicone
Polymer Types	Acrylonitrile Butadiene Styrene (ABS)
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 20260326

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	40	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	32	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	44	%	ASTM D638
Tensile Modulus, 50 mm/min	2220	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	60	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2270	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	38	MPa	ISO 527
Tensile Stress, break, 5 mm/min	31	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.2	%	ISO 527
Tensile Strain, break, 5 mm/min	59	%	ISO 527
Tensile Modulus, 1 mm/min	2120	MPa	ISO 527
Flexural Stress	56	MPa	ISO 178
Flexural Modulus, 2 mm/min	2110	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1380	J/m	ASTM D4812
Izod Impact, notched, 23°C	149	J/m	ASTM D256
Multiaxial Impact	3	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	7	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	132	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	95	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	86	°C	ASTM D648
CTE, -30°C to 30°C, flow	9.2E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	9.3E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	95	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	86	°C	ISO 75/Af
PHYSICAL (1)			
Specific Gravity	1.05	-	ASTM D792
Density	1.05	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.25	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	0.6 – 0.9	%	ASTM D955
Wear Factor Washer	480	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	-2	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.46	-	ASTM D3702 Modified: Manual
Static COF	0.43	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.36	%	ISO 62
Melt Volume Rate			
230°C/5.0 kg	11	cm³/10 min	ISO 1133
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.

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