LNP™ LUBRICOMP™ COMPOUND WR2210

DESCRIPTION

LNP LUBRICOMP WR2210 compound is based on Polycarbonate (PC) resin containing proprietary lubricant. Added features of this grade include: Internally Lubricated, Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
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 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 5 mm/min	2000	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min	59	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	62	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	94	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	88	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2390	MPa	ASTM D790
K-factor xE-10, PV=2000 psi-fpm vs Steel	85	-	SABIC method
Coefficient of Friction on steel, Static	0.17	-	ASTM D1894
Coefficient of Friction on steel,Kinetic	0.21	-	ASTM D1894
IMPACT [1]			
Izod Impact, notched, 23°C	630	J/m	ASTM D256
Tensile Impact Strength, Type S	630	kJ/m²	ASTM D1822
Instrumented Dart Impact Energy @ peak, 23°C	56	J	ASTM D3763
Izod Impact, notched, -20°C	150	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	45	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	20	kJ/m²	ISO 180/1A
Charpy Impact, notched, 23°C, 80*10*4mm, Cut	35	kJ/m²	ISO 179/1eA
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	127	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	127	°C	ASTM D648
CTE, 23°C to 80°C, flow	7.E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Temp Index, Elec [2]	100	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	100	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	100	°C	UL 746B
Thermal Conductivity	0.2	W/m-°C	ISO 8302
PHYSICAL [1]			
Specific Gravity	1.2	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm [3]	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	18.2	g/10 min	ASTM D1238
Melt Volume Rate, MVR at 300°C/1.2 kg	15	cm³/10 min	ISO 1133
ELECTRICAL [1] [2]			
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 4	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1	≥3	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 2	≥1.5	mm	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-221024	-	-
UL Yellow Card Link 2	E207780-100726470	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	280 – 305	°C	
Nozzle Temperature	275 – 300	°C	
Front - Zone 3 Temperature	280 – 305	°C	
Middle - Zone 2 Temperature	270 – 295	°C	
Rear - Zone 1 Temperature	260 – 280	°C	
Mold Temperature	70 – 95	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

(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) 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.

(3) 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.

(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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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