LNP™ LUBRICOMP™ COMPOUND DCI06APW

DCI06APW

DESCRIPTION

LNP LUBRICOMP DCI06APW compound is based on Polycarbonate (PC) resin containing 30% carbon fiber and silicone. Added features of this grade include: Electrically Conductive, High Flow, Wear Resistant. Healthcare, Biocompatible (ISO10993).

GENERAL INFORMATION	
Features	Electrically Conductive, High Flow, Wear resistant, Biocompatability-ISO10993, Healthcare/Formula lock, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber, Silicone
Polymer Types	Polycarbonate (PC)
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 20241017

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	183	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.4	%	ASTM D638
Tensile Modulus, 5 mm/min	25440	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	265	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	20100	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	183	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	23830	MPa	ISO 527
Flexural Strength, 2 mm/min	262	MPa	ISO 178
Flexural Modulus, 2 mm/min	20600	MPa	ISO 178
Compressive Strength	128	MPa	SABIC method
Shear Modulus	3508	MPa	ASTM D732
Shear Strength	92	MPa	ASTM D732
IMPACT [1]			
Izod Impact, unnotched, 23°C	504	J/m	ASTM D4812
Izod Impact, notched, 23°C	94	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	16	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	128	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	9.7E-06	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	4.6E-05	1/°C	ASTM D696
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Af
PHYSICAL [1]			
Wear Factor Washer	13	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.24	-	ASTM D3702 Modified: Manual
Static COF	0.22	-	ASTM D3702 Modified: Manual
Specific Gravity	1.3	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.11	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.05 – 0.15	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.15 – 0.4	%	ASTM D955
Melt Volume Rate, MVR at 300°C/5.0 kg	28	cm³/10 min	ASTM D1238
ELECTRICAL [1]			
Surface Resistivity	1.E+03	Ω	ASTM D257
INJECTION MOLDING [3]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Melt Temperature	290 – 300	°C	
Front - Zone 3 Temperature	285 – 300	°C	
Middle - Zone 2 Temperature	275 – 290	°C	
Rear - Zone 1 Temperature	270 – 285	°C	
Mold Temperature	100 – 120	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	40 – 80	rpm	
Maximum Moisture Content	0.02	%	

(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.

MORE INFORMATION

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

DISCLAIMER