LNP™ LUBRICOMP™ COMPOUND DCI06APW

DCI06APW

DESCRIPTION

LNP* LUBRICOMP* DCI06APW is a compound based on Polycarbonate resin containing Carbon Fiber. Added features of this material include: Electrically Conductive, High Flow, Wear Resistant. This grade has been pre-assessed and passed the material related tests from the ISO 10993 “Biological Evaluation of Medical Devices”.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	183	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	25440	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	265	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	20100	MPa	ASTM D 790
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 Stress	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			
Izod Impact, unnotched, 23°C	504	J/m	ASTM D 4812
Izod Impact, notched, 23°C	94	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	16	J	ASTM D 3763
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			
HDT, 1.82 MPa, 3.2mm, unannealed	128	°C	ASTM D 648
CTE, -30°C to 30°C, flow	9.7E-06	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	4.6E-05	1/°C	ASTM D 696
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Af
PHYSICAL			
Wear Factor Washer	13	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.24	-	ASTM D 3702 Modified: Manual
Static COF	0.22	-	ASTM D 3702 Modified: Manual
Specific Gravity	1.3	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.11	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.05 – 0.15	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.15 – 0.4	%	ASTM D 955
Melt Volume Rate, MVR at 300°C/5.0 kg	28	cm³/10 min	ASTM D 1238

© 2019 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Surface Resistivity	1.E+03	Ohm	ASTM D 257
INJECTION MOLDING			
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	%	

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2019 Copyright by SABIC. All rights reserved