LNP™ LUBRICOMP™ COMPOUND DCP36

DCL-4536

DESCRIPTION

LNP* LUBRICOMP* DCP36 is a compound based on Polycarbonate containing 30% Carbon Fiber, 15% PTFE/Silicone. Added features of this grade include: Wear Resistant, Electrically Conductive.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	111	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.2	%	ASTM D 638
Tensile Modulus, 5 mm/min	16260	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	186	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	185	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	13400	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	120	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.7	%	ISO 527
Tensile Modulus, 1 mm/min	15250	MPa	ISO 527
Flexural Stress	183	MPa	ISO 178
Flexural Modulus, 2 mm/min	13770	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	456	J/m	ASTM D 4812
Izod Impact, notched, 23°C	91	J/m	ASTM D 256
Multiaxial Impact	3	J	ISO 6603
Instrumented Impact Total Energy, 23°C	13	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	23	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	140	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	137	°C	ASTM D 648
CTE, -30°C to 30°C, flow	5.E-06	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	3.1E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	145	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.4	-	ASTM D 792
Density	1.39	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.05	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.17	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.3	%	ASTM D 955
Wear Factor Washer	18	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	0	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.5	-	ASTM D 3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Static COF	0.48	-	ASTM D 3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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