LNP™ LUBRICOMP™ COMPOUND DBL32

DBL-4032

DESCRIPTION

LNP LUBRICOMP DBL32 compound is based on Polycarbonate (PC) resin containing 10% glass bead and 15% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Additives	PTFE
Features	Wear resistant, Dimensional stability
Fillers	Glass Bead, PTFE
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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	42	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	38	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	5.4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	22.3	%	ASTM D638
Tensile Modulus, 50 mm/min	2060	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2750	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	43	MPa	ISO 527
Tensile Stress, break, 5 mm/min	38	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.1	%	ISO 527
Tensile Strain, break, 5 mm/min	18.2	%	ISO 527
Tensile Modulus, 1 mm/min	2580	MPa	ISO 527
Flexural Stress	69	MPa	ISO 178
Flexural Modulus, 2 mm/min	2400	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1500	J/m	ASTM D4812
Izod Impact, notched, 23°C	192	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	31	J	ASTM D3763
Multiaxial Impact	25	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	105	kJ/m²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	14	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	135	°C	ASTM D648
CTE, -40°C to 40°C, flow	5.4E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.94E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	5.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	135	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.37	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.9 – 1.1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.8	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.96	%	ISO 294
Wear Factor Washer	139	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.41	-	ASTM D3702 Modified: Manual
Static COF	0.48	-	ASTM D3702 Modified: Manual
Density	1.37	g/cm³	ISO 1183
INJECTION MOLDING [3]			
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	

(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.

DISCLAIMER