LNP™ LUBRICOMP™ COMPOUND DZL24

DFL-4024 M

DESCRIPTION

LNP LUBRICOMP DZL24 compound is based on Polycarbonate (PC) resin containing 20% milled glass, 10% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Milled Glass Fiber, 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, yield, 5 mm/min	36	MPa	ISO 527
Tensile Stress, break, 5 mm/min	34	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.1	%	ISO 527
Tensile Strain, break, 5 mm/min	31.2	%	ISO 527
Tensile Modulus, 1 mm/min	2970	MPa	ISO 527
Flexural Strength, 2 mm/min	65	MPa	ISO 178
Flexural Modulus, 2 mm/min	2840	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	37	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	35	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	5.1	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	26.1	%	ASTM D638
Tensile Modulus, 5 mm/min	3100	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	70	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2980	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	74	kJ/m²	ISO 180/1U
Multiaxial Impact	15	J	ISO 6603
Izod Impact, notched, 23°C	140	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1120	J/m	ASTM D4812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart Impact Total Energy, 23°C	24	J	ASTM D3763
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	126	°C	ISO 75/Af
HDT, 0.45 MPa, 3.2 mm, unannealed	141	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	127	°C	ASTM D648
CTE, -30°C to 30°C, flow	7.3E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	7.4E-05	1/°C	ASTM D696
PHYSICAL [1]			
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62
Density	1.42	g/cm³	ASTM D792
Specific Gravity	1.41	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.12	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.3 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.4 – 0.7	%	ASTM D955
Wear Factor Washer	61	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	4	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.44	-	ASTM D3702 Modified: Manual
Static COF	0.46	-	ASTM D3702 Modified: Manual
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