LNP™ LUBRICOMP™ COMPOUND DFL36ELH

DFL-4036 EM LE HC

DESCRIPTION

LNP LUBRICOMP DFL36ELH compound is based on Polycarbonate (PC) resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant, Low Extractable, Easy Molding, Healthcare.

GENERAL INFORMATION	
Features	Good Processability, Wear resistant, Food contact, Healthcare/Formula lock, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	114	MPa	ISO 527
Tensile Stress, break	113	MPa	ISO 527
Tensile Strain, yield	2.4	%	ISO 527
Tensile Strain, break	2.6	%	ISO 527
Tensile Modulus, 1 mm/min	9280	MPa	ISO 527
Flexural Stress	180	MPa	ISO 178
Flexural Modulus	8700	MPa	ISO 178
Tensile Stress, yield	113	MPa	ASTM D638
Tensile Stress, break	112	MPa	ASTM D638
Tensile Strain, yield	2.4	%	ASTM D638
Tensile Strain, break	2.5	%	ASTM D638
Tensile Modulus, 50 mm/min	9650	MPa	ASTM D638
Flexural Stress	179	MPa	ASTM D790
Flexural Modulus	8960	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	17	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	51	kJ/m²	ISO 180/1U
Multiaxial Impact	7	J	ISO 6603
Izod Impact, notched, 23°C	176	J/m	ASTM D256
Izod Impact, unnotched, 23°C	854	J/m	ASTM D4812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart Impact Energy @ peak, 23°C	21	J	ASTM D3763
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	149	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	144	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	3.0E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.70E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	147	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	142	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.06E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.68E-05	1/°C	ASTM E831
PHYSICAL [1]			
Density	1.55	g/cm³	ISO 1183
Mold Shrinkage, flow, 24 hrs [2]	0.21	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.71	%	ISO 294
Density	1.55	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.6 – 0.8	%	ASTM D955
Wear Factor Washer	27	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.57	-	ASTM D3702 Modified: Manual
Static COF	0.49	-	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