

LNPTM LUBRICOMPTM COMPOUND QCP36

QCL-4536

DESCRIPTION

LNP LUBRICOMP QCP36 compound is based on Nylon 6/10 resin containing 15% PTFE/silicone, 30% carbon fiber. Added features of this grade include: Wear Resistant. Electrically Conductive

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber, PTFE/Silicone
Polymer Types	Polyamide 610 (Nylon 610)
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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Strain, break	6.2	%	ISO 527
Tensile Strain, yield	1.9	%	ISO 527
Tensile Stress, break	188	MPa	ISO 527
Tensile Stress, yield	188	MPa	ISO 527
Tensile Modulus, 1 mm/min	19200	MPa	ISO 527
Flexural Modulus, 2 mm/min	17000	MPa	ISO 178
Flexural Strength, 2 mm/min	280	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	173	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	173	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	1.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D638
Tensile Modulus, 5 mm/min	19850	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	282	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	16540	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	801	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	49	kJ/m²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	212	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	222	°C	ISO 75/Bf
CTE, -40°C to 40°C, flow	2.60E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.80E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	221	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	212	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.86E-05	1/°C	ASTM E831
PHYSICAL ⁽¹⁾			
Density	1.32	g/cm³	ISO 1183
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.35	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.8	%	ISO 294
Density	1.32	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.8	%	ASTM D955
Wear Factor Washer	15	10 ⁻⁴ in ³ /min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.46	-	ASTM D3702 Modified: Manual
Static COF	0.46	-	ASTM D3702 Modified: Manual
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	270 – 275	°C	
Front - Zone 3 Temperature	270 – 280	°C	
Middle - Zone 2 Temperature	260 – 270	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	