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LNP™ LUBRICOMP™ COMPOUND QL002

QL-4020

DESCRIPTION

LNP LUBRICOMP QL002 compound is based on Nylon 6/10 resin containing 10% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Unreinforced, PTFE
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 Stress, brk, Type I, 5 mm/min	52	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D638
Tensile Modulus, 50 mm/min	2680	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2270	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	61	MPa	ISO 527
Tensile Strain, break, 5 mm/min	4.5	%	ISO 527
Tensile Modulus, 1 mm/min	2480	MPa	ISO 527
Flexural Stress	73	MPa	ISO 178
Flexural Modulus, 2 mm/min	2040	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	399	J/m	ASTM D4812
Izod Impact, notched, 23°C	39	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	3	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	42	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	164	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	63	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.1E-04	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.2E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	143	°C	ISO 75/Bf

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	54	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.15	-	ASTM D792
Density	1.14	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.26	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.9 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1 – 4	%	ASTM D955
Wear Factor Washer	35	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	0	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.38	-	ASTM D3702 Modified: Manual
Static COF	0.25	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.38	%	ISO 62
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	