LNP™ LUBRICOMP™ COMPOUND QL004

QL-4040

DESCRIPTION

LNP LUBRICOMP QL004 is a compound based on Nylon 6/10 containing 20% PTFE. Added features of this grade include: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	53	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	53	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	14.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	15.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	2430	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	1710	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	53	MPa	ISO 527
Tensile Stress, break, 5 mm/min	52	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	10.8	%	ISO 527
Tensile Strain, break, 5 mm/min	11.4	%	ISO 527
Tensile Modulus, 1 mm/min	2480	MPa	ISO 527
Flexural Stress	50	MPa	ISO 178
Flexural Modulus, 2 mm/min	2320	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	675	J/m	ASTM D 4812
Izod Impact, notched, 23°C	39	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	3	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	181	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	56	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.1E-04	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.1E-04	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	170	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	60	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Density	1.2	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.26	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 – 3	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.37	%	ISO 62

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING			
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	

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