

# LNPTM LUBRICOMPTM COMPOUND RFN18S

RFL-4218 HS

## DESCRIPTION

LNP LUBRICOMP RFN18S compound is based on Nylon 6/6 resin containing 49% glass fiber, Molybdenum diSulfide (MoS2). Added features of this grade include: Heat Stabilized, Wear Resistant.

GENERAL INFORMATION					
Features	Heat Stabilized, Wear resistant, High stiffness/Strength, No PFAS intentionally added				
Fillers	Glass Fiber, Molybdenum				
Polymer Types	Polyamide 66 (Nylon 66)				
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		
<b>MECHANICAL<sup>(1)</sup></b>					
Tensile Stress, break	177	MPa	ASTM D638		
Tensile Strain, break	1.8	%	ASTM D638		
Tensile Modulus, 5 mm/min	15510	MPa	ASTM D638		
Flexural Stress	268	MPa	ASTM D790		
Flexural Modulus	10750	MPa	ASTM D790		
Tensile Stress, break	192	MPa	ISO 527		
Tensile Strain, break	2.2	%	ISO 527		
Tensile Modulus, 1 mm/min	14000	MPa	ISO 527		
Flexural Stress	287	MPa	ISO 178		
Flexural Modulus	13100	MPa	ISO 178		
<b>IMPACT<sup>(1)</sup></b>					
Izod Impact, unnotched, 23°C	891	J/m	ASTM D4812		
Izod Impact, notched, 23°C	84	J/m	ASTM D256		
Instrumented Dart Impact Energy @ peak, 23°C	8	J	ASTM D3763		
Multiaxial Impact	2	J	ISO 6603		
Izod Impact, unnotched 80*10*4 +23°C	59	kJ/m <sup>2</sup>	ISO 180/1U		
Izod Impact, notched 80*10*4 +23°C	10	kJ/m <sup>2</sup>	ISO 180/1A		
<b>THERMAL<sup>(1)</sup></b>					
HDT, 0.45 MPa, 3.2 mm, unannealed	259	°C	ASTM D648		
HDT, 1.82 MPa, 3.2mm, unannealed	250	°C	ASTM D648		

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	>240	°C	ISO 75/Af
<b>PHYSICAL<sup>(1)</sup></b>			
Density	1.51	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.61	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1.1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.35	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1.17	%	ISO 294
Wear Factor Washer	45	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.75	-	ASTM D3702 Modified: Manual
Static COF	0.59	-	ASTM D3702 Modified: Manual
Density	1.51	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	1	%	ISO 62
<b>INJECTION MOLDING<sup>(3)</sup></b>			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	