

NYLACAST NYLUBE

Nylube was introduced into the Nylacast product range in 1989 as a logical progression to Oilon with already outstanding performance as a bearing material. Since that time, it has proved to be Nylacast's supreme wear resisting grade and one of the most important developments from Nylacast in new materials. Nylube contains a combined liquid/solid lubricant system which allows for a coefficient of friction as low as 0.08. This is below that of almost any other polymer available at present.

Nylube has substantially improved the wear resistance abilities compared to that of any other currently available lubricated grade of cast nylon, whilst retaining excellent physical property characteristics. The material is particularly suited to dry running bearing applications throughout a wide load, speed and temperature range (up to 120°C).

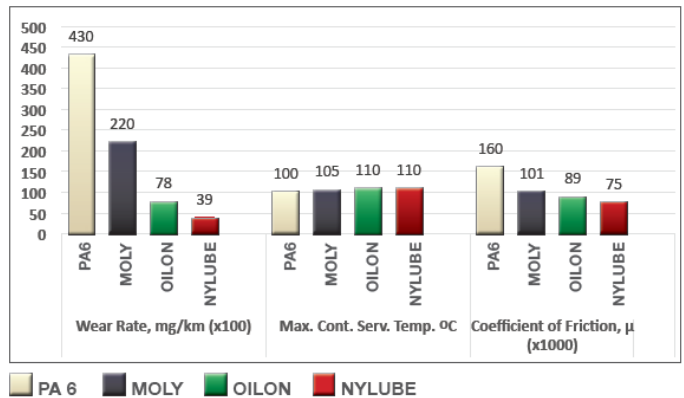
Like Oilon, Nylube is suitable for use in applications in the food and pharmaceutical industries.

BENEFITS OF NYLACAST NYLUBE

- Outstanding wear and abrasion resistance
- Significantly improved PV characteristics
- Improved operating temperature capability
- Outstanding lubrication and low coefficient of friction
- Greatly improved stick/slip capabilities
- Wide load, speed and temperature operating range
- Consistent wear performance throughout product life
- Excellent dimensional stability
- Reduced water absorption
- Excellent chemical resistance
- Blended solid/liquid lubricant system
- FDA compliant for direct food contact applications

INDUSTRY USERS

- Construction
- Aerospace
- Transport
- Ship building
- Food and drink packaging
- Pharmaceuticals
- Steel mills
- Quarrying and mining
- Cranes
- Agriculture
- Recycling and waste management



TYPICAL APPLICATIONS

- Wear pads
- Stabilisers
- Stoppers
- Pulleys
- L-shape wear pads
- Sheaves
- Rollers
- Sliders
- Stoppers
- Bushes
- Slide pads
- Bearings
- Gears
- Winches
- Bespoke Components

Nylacast Nylube is available as standard plate, rod and over thousands of tubes OD/ID configurations in several different lengths.



PROPERTY	TEST METHOD	NOTES	METRIC	UNITS	IMPERIAL	UNITS
GENERAL						
Colour	-	-	-	Dark Red	-	Dark Red
Density	ISO 1183:1997	Test Method A	g/cm ³	1.141	lb/inchE3	0.041
Moisture Absorption (Equilibrium)	ISO 62:1999 (modified)	50% RH, 23°C	%	2	%	2
Water Absorption @24 hrs	ISO 62:1999 (modified)	Immersion @ 23°C	%	0.2	%	0.2
Water Absorption @24 hrs Saturation	ISO 62:1999	Immersion @ 23°C	%	5.9	%	5.9
MECHANICAL						
Tensile Strength at Yield	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	MPa	80-90	psi	12.8k
E-modulus	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	MPa	3600-4000	psi	596k
Elongation at Break	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	%	>30	%	>30
Compressive Strength	ISO 604:2002	Sample Type B, 5mm/min	MPa	105-125	psi	14.7k
Compressive Modulus	ISO 604:2002	Sample Type A, 1mm/min	MPa	2500-2700	psi	377k
Flexural Strength	ISO 178:2001	1.5mm/min	MPa	115-125	psi	15.9k
Flexural Modulus	ISO 178:2001	1.5mm/min	MPa	3350-3600	psi	486k
Izod Impact Strength	ISO 180:2000	Sample Type A (notched)	kJ/mm ²	5.5-7.0	ft.lb/inE2	3.5
Dynamic Coefficient of Friction	-	31.4m/min, 1.75MPa	-	0.075	-	0.075
Limiting PV	-	-	MPa/m	100	psi.ft/min	2.9k
K-Factor (wear factor)	-	31.4m/min, 1.75MPa	m ³ /Nm	3.9x10E-6	-	1.9x10E4
Hardness (Shore D)	ISO 868: 2003	Scale D	Shore D	83	Shore D	83
THERMAL						
Melting Temperature, Tg	-	-	°C	222	°F	433
Glass Transition Temperature	ISO 11359:1999	-	°C	65	°F	149
Heat Deflection Temperature, HDT/A	ISO 75	1.80MPa	°C	75	°F	167
Maximum/Minimum Continuous Service Temperatures	-	-	°C	110/-40	°F	230/-40
Maximum/Minimum Intermittent Service Temperatures	-	-	°C	180/-100	°F	356/-148
Coefficient of Linear Thermal Expansion	ISO 11359-2:1999	23-55°C	°C ⁻¹	8x10E-5	°F/E-1	4.4x1-E-5
Thermal Conductivity	ISO 8301:1991	Mean T = 20°C	W/moC	0.25	°F	0.15
Flammability	IEC 60695-11-10:2003-08	-	-	HB	-	HB

ELECTRICAL						
Dielectric Constant	IEC 60250:1969-01	1 & 100 Hz	-	3.7 & 4	-	3.7 & 4
Dissipation Factor	IEC 60250:1969-01	100 Hz	-	0.013	-	0.013
Dielectric Strength	IEC 60243-1:1998-01	-	kV/m	25	kV/in	635
Volume Resistivity	IEC 60093:1980-01	-	ohm.m	>1x10E13	ohm.m	4x10E14
Surface Resistivity	IEC 60093:1980-01	-	ohm.m	>1x10E12	ohm.m	>1x10E12
Comparative Tracking Index	IEC 60112:2003-01	-	CTI	600	CTI	600
FDA Compatibility						
				YES	YES	

PRODUCT AVAILABILITY	
Rod	10mm-500mm DIA
Tube	50mm-1000mm OD
Plate	8mm-100mm THICKNESS
Custom Castings	Bespoke
Cut to size	Available upon request

NOTES
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