Nylacast Nylube

PROPERTY	TEST METHOD	NOTES	METRIC	UNITS	IMPERIAL	UNITS
GENERAL						
Colour				Red Black Natural		Red Black Natural
Density	ISO1183:1987	Test Method A	g/cm^3	1.145	lb/inch^3	0.041
Moisture Absorption (Equilibrium)	ISO 62:1999	50% RH, 23C	%	-	%	-
Water Absorption (24 Hours)	ISO 62:1999(modified)	Immersion, 23C	%	-	%	-
Water Absorption (Saturation)	ISO 62:1999	Immersion, 23C	%	-	%	-
MECHANICAL						
Tensile strength	ISO 527-1/2:1993	Sample Type 1B, 50mm min^{-1}	MPa	80	psi	11603
E-modulus	ISO 527-1/2:1993	Sample Type 1B, 50mm min^{-1}	MPa	4000	psi	580152
Elongation at break	ISO 527-1/2:1993	Sample Type 1B, 50mm min^{-1}	%	>20	%	>20
Compressive strength	ISO 604:2002	Sample Type B, 5mm min^{-1}	MPa	95	psi	13779
Compressive Modulus	ISO 604:2002	Sample Type A, 1mm min^{-1}	MPa	2600	psi	377099
Flexural Strength*	ISO 178:2001	1.5mm min^{-1}	MPa	105	psi	15229
Flexural Modulus	ISO 178:2001	1.5mm min^{-1}	MPa	3400	psi	493130
Izod Impact Strength	ISO 180:2000	Sample Type A (Notched)	kJ/m^2	6.00	ft.lb/in^2	2.86
Charpy Impact Strength	ISO 179-2:1999	Notched	kJ/m^2	-	ft.lb/in^2	-
Hardness (Shore D)	ISO 868: 2003			84		84
Coefficient of Friction (Dynamic)		31.4m/min, 1.75MPa		0.08		0.08
Limiting PV			Mpa/m.min	-	psi.ft/min	-
Wear Rate		31.4m/min, 1.75MPa	mg/km	0.02		-
K-Factor		31.4m/min, 1.75MPa	mm^3/Nm	0.25 x 10^{-6}	in^{3}min/ft.lb.hr	0.12 x 10^{-9}
THERMAL						
Melting Temperature	-		°C	220	°F	428
Glass Transition Temperature (Tg)	ISO 11359-2:1999		°C	-	°F	-
Heat Deflection Temperature HDT/A	ISO 75	1.80MPa	°C	-	°F	-
Heat Deflection Temperature HDT/B	ISO 75	0.45MPa	°C	-	°F	-
Maximum Intermittent Service Temperature	-		°C	180	°F	356
Maximum Continuous Service Temperature	-	5000hrs	°C	110	°F	230
Minimum Intermitenet Service Temperature	-		°C	-100	°F	-148
Minimum Continuous Service Temperature	-		°C	-40	°F	-40
Coefficient of Linear Thermal Expansion (TMA)	ISO 11359-2:1999	23°C - 55°C	°C^{-1}	8 x 10^{-5}	°F^{-1}	4.44 x 10^{-5}
Thermal Conductivity	ISO 8301:1991	Mean T = 20°C	W/m°C	-	BTU in/ft.hr°F	
Flammability	IEC 60695-11-10:2003-08		-	HB	-	HB
ELECTRICAL						
Dielectric Constant	IEC 60250:1969-01	1 MHz		3.7		3.7
Dielectric Constant (Low Frequency)		100Hz		4		4
Dissipation Factor	IEC 60250:1969-01	100Hz	Hz	-	Hz	-
Dielectric Strength	IEC 60243-1:1998-01		kV/mm	25	kV/in	635
Volume Resistivity	IEC 60093:1980-01		ohm.m	1x10^{13}	ohm.m	3.93x10^{16}
Surface Resistivity ROA	IEC 60093:1980-01		ohm	1 x 10^{12}	ohm	3 x 10^{12}
Comparative Tracking Index	IEC 60112:2003-01		CTI	600	CTI	600

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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