

NYLACAST NYLANITE

Nylanite is an unreinforced, self-lubricating, semi-crystalline thermoplastic polyester, demonstrating dimensional stability similar to Acetal, combined with the comparable wear resistance of nylon. Heavily loaded mechanical precision components subjected to sustained abrasive environments are particularly suited to this material.

PROPERTY	TEST METHOD	UNITS	NOTES	NYLANITE
GENERAL				
Colour	-	-	-	Grey
Density	ISO 1183:1987	g/cm ³	Test Method A	1.38
Water Absorption @24 hrs	ISO 62:1999 (modified)	%	Immersion @ 23°C	0.06
Water Absorption @24 hrs Saturation	ISO 62:1999	%	Immersion @ 23°C	0.3
MECHANICAL				
Tensile Strength	ISO 527-1/2:1993	MPa	Sample Type 1B, 50mm/min	78
E-Modulus	ISO 527-1/2:1993	MPa	Sample Type 1B, 50mm/min	3000
Elongation at Break	ISO 527-1/2:1993	%	Sample Type 1B, 50mm/min	9.16
Compressive Strength	ISO 604:2002	MPa	Sample Type B, 5mm/min	122.84
Compressive Modulus	ISO 604:2002	MPa	Sample Type A, 1mm/min	2252
Flexural Strength	ISO 178:2001	MPa	1.5mm/min	123.12
Flexural Modulus	ISO 178:2001	MPa	1.5mm/min	3550
Izod Impact Strength	ISO 180:2000	kJ/mm ²	Sample Type A (notched)	3.994
Coefficient of Friction (Dynamic)	-	-	31.4m/min, 1.75MPa	0.12
Hardness (Shore D)	ISO 868: 2003	-	-	79.9
THERMAL				
Melting Temperature	-	°C	-	247.94
Heat Deflection Temperature, HDT/A	ISO 75	°C	1.80MPa	
Maximum Continuous Service Temperatures	-	°C	5000hrs	100
Maximum Intermittent Service Temperatures	-	°C	-	150
Minimum Intermittent Service Temperatures	-	°C	-	-60
Minimum Continuous Service Temperatures	-	°C	-	-40
Coefficient of Linear Thermal Expansion	ISO 11359-2:1999	°C ⁻¹	23°C - 55°C	6 x 10 ⁻⁵
Flammability	IEC 60695-11-10:2003-08	-	-	HB
ELECTRICAL				
Dielectric Constant	IEC 60250:1969-01	-	1 MHz	3.7
Dissipation Constant (Low Frequency)		-	100 Hz	4
Dielectric Strength	IEC 60243:-1:1998-01	kV/mm	-	25
Comparative Tracking Index	IEC 60112:2003-01	CTI	-	600
FDA Compatibility				

PRODUCT AVAILABILITY

Rod	16mm to 100mm Diameters
Tube	50mm to 100mm OD Tube
Cut to size	Available upon request

NOTES

All information contained in this literature correspond with our current knowledge of the products.

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