

NYLACAST POM-C

PROPERTY	TEST METHOD	NOTES	UNITS	METRIC
GENERAL				
Colour	-	-	-	Natural, Black
Density	ISO 1183	DIN 53479	g/cm ³	1.41
Water absorption in air 50% r.h.	ISO 62	DIN 53715	%	0.2
Absorption 23°C in water-saturation	ISO 62	DIN 53495	%	0.65
MECHANICAL				
Tensile Strength at Yield	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	MPa	75-80
Elongation at Break	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	MPa	3800-4000
Tensile Modulus of elasticity	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	%	>20
Compression test 1% strain 1000h	ISO 604:2002	Sample Type B, 5mm/min	MPa	105
Impact strength Charpy 7, 5 J	ISO 604:2002	Sample Type A, 1mm/min	MPa	2500-2700
Notched impact strength Charpy	ISO 178:2001	1.5mm/min	MPa	100-110
Ball Indentation hardness	ISO 178:2001	1.5mm/min	MPa	3000-3200
Rockwell hardness (dry)	ISO 180:2000	Sample Type A (notched)	kJ/mm ²	5.5-7.0
Coefficient of friction to steel	-	31.4m/min, 1.75MPa	-	0.101
THERMAL				
Melting point	ISO 3146	-	°C	165
Thermal conductivity	ISO 22007.2	DIN 52612	1.80MPa	0.3
Deformation at temperature HDT	ISO 75	DIN 53461	°C	95
Linear expansion coefficient 23-60°C	ISO 11359	DIN 53752	K ⁻¹	120 x 10 ⁻⁶
Operating temperature continuously	-	-	°C	100
Operating temperature short period-no load	-	-	°C	140
Minimum operating temperature	-	-	°C	-50
Flammability UL 94 (3-6mm thickness)	-	UL94	HB	-
Oxygen index (LOI)	ISO 4589	DIN 22117	%	15
ELECTRICAL				
Dielectric Constant at 1 MHz	ISO 250	DIN 53483	-	3.7 & 4
Dielectric Strength	ISO 243	DIN 53481	-	0.11
Volume Resistivity	ISO 93	DIN 53482	kV/m	25
Dissipation factor tan Δ at 1MHz	ISO 250	DIN 53483	Ω .m	>1x10 ¹³
FDA Compatibility				
NO				

PRODUCT AVAILABILITY

Rod	10mm-500mm DIA
Tube	50mm-1000mm OD
Plate	6mm-100mm Thickness
Custom Castings	Bespoke
Cut to size	Available upon request

NOTES

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