

Nylacast Impact

PROPERTY	TEST METHOD	NOTES	METRIC	UNITS	IMPERIAL	UNITS
GENERAL						
Colour				Grey		Black
Density	ISO1183:1987	Test Method A	g/cm ³	1.11	lb/inch ³	0.04
Water Absorption (Equilibrium)	ISO 62:1999	Immersion, 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	60-70	psi	8702 -10153
E-modulus	ISO 527-1/2:1993	Sample Type 1B, 50mm min-1	MPa	3250	psi	471372
Elongation at break	ISO 527-1/2:1993	Sample Type 1B, 50mm min-1	%	<10	%	<10
Compressive strength	ISO 604:2002	Sample Type B, 5mm min-1	MPa	120	psi	17405
Compressive Modulus	ISO 604:2002	Sample Type A, 1mm min-1	MPa	2400	psi	348090
Flexural Strength*	ISO 178:2001	1.5mm min-1	MPa	93.5	psi	13561
Flexural Modulus	ISO 178:2001	1.5mm min-1	MPa	2400	psi	348090
Izod Impact Strength	ISO 180:2000	Sample Type A (Notched)	kJ/m ²	13.9	ft.lb/in ²	6.609
Charpy Impact Strength	ISO 179-2:1999	Notched	kJ/m ²	-	ft.lb/in ²	-
Hardness (Shore D)	ISO 868: 2003			-		-
Coefficient of Friction (Dynamic)		31.4m/min, 1.75MPa		-		-
Limiting PV			Mpa/m. min	-	psi.ft/min	-
Wear Rate		31.4m/min, 1.75MPa	mg/km mm ³ / Nm	-	in ³ min/ ft.lb.hr	-
K-Factor		31.4m/min, 1.75MPa		-		-
THERMAL						
Melting Temperature	-		°C	219.47	°F	427.026
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	+ 150	°F	302
Maximum Continuous Service Temperature	-	5000hrs	°C	+ 100	°F	212
Minimum Intermittent 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	5-8 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 ¹⁵	ohm.m	3.93x10 ¹⁶
Surface Resistivity ROA	IEC 60093:1980-01		ohm	1 x 10 ¹⁵	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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