

NYLACAST HS BLUE PA 6 C + UV & HEAT STABILISERS

PROPERTY	TEST METHOD	NOTES	METRIC	UNITS	IMPERIAL	UNITS
GENERAL						
Colour	-	-	-	Blue	-	Blue
Density	ISO 1183:1997	Test Method A	g/cm ³	1.135	lb/inchE3	0.041
Moisture Absorption (Equilibrium)	ISO 62:1999 (modified)	50% RH, 23°C	%	2.5	%	2.5
Water Absorption @24 hrs	ISO 62:1999 (modified)	Immersion @ 23°C	%	0.3	%	0.3
Water Absorption @24 hrs Saturation	ISO 62:1999	Immersion @ 23°C	%	7	%	7
MECHANICAL						
Tensile Strength at Yield	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	MPa	75-85	psi	12.0k
E-modulus	ISO 527-1/2:1993	Sample Type 1B, 50mm/min	MPa	3300-3700	psi	560k
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	120-130	psi	16.0k
Compressive Modulus	ISO 604:2002	Sample Type A, 1mm/min	MPa	2600-2800	psi	441k
Flexural Strength	ISO 178:2001	1.5mm/min	MPa	100-120	psi	14.6k
Flexural Modulus	ISO 178:2001	1.5mm/min	MPa	3300-3500	psi	472k
Izod Impact Strength	ISO 180:2000	Sample Type A (notched)	kJ/mm ²	5.0-6.5	ft.lb/inE2	3.2
Dynamic Coefficient of Friction	-	31.4m/min, 1.75MPa	-	0.15	-	0.15
Limiting PV	-	-	MPa/m	100	psi.ft/min	2.9k
K-Factor (wear factor)	-	31.4m/min, 1.75MPa	mm ³ /Nm	4.0x10E-5	-	2.0x10E4
Hardness (Shore D)	ISO 868: 2003	Scale D	Shore D	84	Shore D	84
THERMAL						
Melting Temperature, Tg	-	-	°C	223.7	°F	435
Glass Transition Temperature	ISO 11359:1999	-	°C	66	°F	167
Heat Deflection Temperature, HDT/A	ISO 75	1.80MPa	°C	74	°F	165
Maximum/Minimum Continuous Service Temperatures	-	-	°C	115/-40	°F	239/-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	4.4x10E-5
Thermal Conductivity	ISO 8301:1991	Mean T = 20°C	W/moC	0.26	°F	0.16
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	-	0.014	-	0.014
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						
				NO	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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