

Material Data

HS BLUE

PA6C + UV & Heat Stabilisers

Additives in the form of high temperature resistant colourants, heat and UV stabilisers allow this material to better retain mechanical properties in applications operating at higher temperatures. The colour agent used to produce HS Blue's distinctive colour conforms to the specifications required by the Japanese market for cast nylon.

PROPERTY	TEST METHOD	NOTES	METRIC UNITS	IMPERIAL UNITS
GENERAL				
Colour				Blue / Black
Density	ISO1183:1987	Test Method A	g/cm ³	1.140 lb/inch ³ 0.041
Moisture Absorption (Equilibrium)	ISO 62:1999	50% RH, 23C	%	- % -
Water Absorption (24 Hours)	ISO 62:1999 (modified)	Immersion, 23C	%	0.3 % 0.3
Water Absorption (Saturation)	ISO 62:1999	Immersion, 23C	%	6.0 % 6.0
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	2700 psi 391603
Flexural Strength*	ISO 178:2001	1.5mm min ⁻¹	MPa	105 psi 15229
Flexural Modulus	ISO 178:2001	1.5mm min ⁻¹	MPa	3300 psi 478626
Izod Impact Strength	ISO 180:2000	Sample Type A (Notched)	KJ/m ²	5.40 ft.lb/in ² 2.57
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	-	0.20 - 0.20
Limiting PV	-	-	MPa/m.min	- psi.ft/min -
Wear Rate	-	31.4m/min, 1.75MPa	mg/km	- - -
K-Factor	-	31.4m/min, 1.75MPa	mm ³ /Nm	4 x 10 ⁻⁶ in ³ .min./ft.lb.hr 2 x 10 ⁻⁴
THERMAL				
Melting Temperature	-	-	°C	220 °F 428
Glass Transition Temperature (Tg)	ISO 11359-2:1999	-	°C	66 °F 150
Heat Deflection Temperature HDT/A	ISO 75	1.80MPa	°C	74 °F 165
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 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	8 x 10 ⁻⁵ °F ⁻¹ 4.72 x 10 ⁻⁵
Thermal Conductivity	ISO 8301:1991	Mean T = 20°C	W/m.°C	0.26 BTU in/ft.hr.°F 0.15
Flammability	IEC 60695-11-10:2003-08	-	-	HB - HB
ELECTRICAL				
Dielectric Constant	IEC 60250:1969-01	1MHz	-	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	1 x 10 ¹³ ohm.in 3.93 x 10 ¹⁴
Surface Resistivity ROA	IEC 60093:1980-01	-	ohm	1 x 10 ¹² ohm 1 x 10 ¹²
Comparative Tracking Index	IEC 60112:2003-01	-	CTI	600 CTI 600
AVAILABILITY				




ROD: 10 mm Ø → 500 mm Ø 

PLATE: 8 mm = → 100 mm = 

TUBE: 50 mm Ø → 1500 mm Ø 

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