



# Moly

## PA 6C + MoS<sub>2</sub>

Improved crystallisation and a degree of self-lubrication occur by the addition of molybdenum disulphide. Hardness increases and simultaneously the general mechanical and anti-friction properties are improved.

PROPERTY	TEST METHOD	NOTES	METRIC UNITS	IMPERIAL UNITS
<b>GENERAL</b>				
Colour				Black
Density	ISO 1183:1987	Test Method A	g/cm <sup>3</sup>	1.150
Moisture Absorption (Equilibrium)	ISO 62:1999	50% RH, 23C	%	-
Water Absorption (24 Hours)	ISO 62:1999 (modified)	Immersion, 23C	%	0.20
Water Absorption (Saturation)	ISO 62:1999	Immersion, 23C	%	6
<b>MECHANICAL</b>				
Tensile strength	ISO 527-1/2:1993	Sample Type 1B, 50mm min <sup>-1</sup>	MPa	85
E-modulus	ISO 527-1/2:1993	Sample Type 1B, 50mm min <sup>-1</sup>	MPa	4100
Elongation at break	ISO 527-1/2:1993	Sample Type 1B, 50mm min <sup>-1</sup>	%	>20
Compressive Strength	ISO 604:2002	Sample Type B, 5mm min <sup>-1</sup>	MPa	105
Compressive Modulus	ISO 604:2002	Sample Type A, 1mm min <sup>-1</sup>	MPa	3000
Flexural Strength*	ISO 178:2001	1.5mm min <sup>-1</sup>	MPa	115
Flexural Modulus	ISO 178:2001	1.5mm min <sup>-1</sup>	MPa	3700
Izod Impact Strength	ISO 180:2000	Sample Type A (Notched)	KJ/m <sup>2</sup>	4.50
Charpy Impact Strength	ISO 179-2:1999	Notched	KJ/m <sup>2</sup>	-
Hardness (Shore D)	ISO 868:2003		-	85
Coefficient of Friction (Dynamic)		31.4m/min, 1.75MPa	-	0.25
Limiting PV			MPa/m.min	-
Wear Rate		31.4m/min, 1.75MPa	mg/km	-
K-Factor		31.4m/min, 1.75MPa	mm <sup>2</sup> /Nm	-
<b>THERMAL</b>				
Melting Temperature	-		°C	220
Glass Transition Temperature (Tg)	ISO 11359-2:1999		°C	-
Heat Deflection Temperature HDT/A	ISO 75	1.80MPa	°C	210
Heat Deflection Temperature HDT/B	ISO 75	0.45MPa	°C	220
Maximum Intermittent Service Temperature	-		°C	170
Maximum Continuous Service Temperature	-	5000hrs	°C	105
Minimum Intermittent Service Temperature	-		°C	-100
Minimum Continuous Service Temperature	-		°C	-40
Coefficient of Linear Thermal Expansion (TMA)	ISO 11359-2:1999	23°C - 55°C	°C <sup>-1</sup>	8 x 10 <sup>-5</sup>
Thermal Conductivity	ISO 8301:1991	Mean T = 20°C	W/m.°C	-
Flammability	IEC 60695-11-10:2003-08		-	HB
<b>ELECTRICAL</b>				
Dielectric Constant	IEC 60250:1969-01	1MHz	-	3.7
Dielectric Constant (Low Frequency)		100Hz	-	4
Dissipation Factor	IEC 60250:1969-01	100 Hz	Hz	-
Dielectric Strength	IEC 60243-1:1998-01		kV/mm	25
Volume Resistivity	IEC 60093:1980-01		ohm.m	1 x 10 <sup>13</sup>
Surface Resistivity ROA	IEC 60093:1980-01		ohm	1 x 10 <sup>12</sup>
Comparative Tracking Index	IEC 60112:2003-01		CTI	600
<b>AVAILABILITY</b>				
ROD: 10mm - 500mm DIA		All information contained in this literature corresponds with our current knowledge of the products. Global EPP assume no liability whatsoever in respect of application, conversion or use made of the aforementioned information or products, or any consequence thereof. The buyer undertakes all liability in respect of the application, conversion or use of the aforementioned information or products. Existing intellectual property rights must be observed and Global EPP reserve the right to make technical alterations.		
PLATE: 6mm - 120mm THICK				
TUBE: 45mm - 1500mm	