

Material Data

POM C

(Acetal Copolymer)

POM-C, acetal copolymer, provides high strength and stiffness coupled with enhanced dimensional stability and ease of machining. Acetal is a semi-crystalline polymer, further characterised by a low coefficient of friction and good wear properties (especially in wet environments)

PROPERTY	TEST METHOD	NOTES	METRIC UNITS	IMPERIAL UNITS	
GENERAL					
Colour				White / Black / Blue	
Density	ISO1183:1987	Test Method A	g/cm ³	1.410	lb/inch ³ 0.051
Moisture Absorption (Equilibrium)	ISO 62:1999	50% RH, 23C	%	0.1	% 0.1
Water Absorption (24 Hours)	ISO 62:1999 (modified)	Immersion, 23C	%	0.2	% 0.2
Water Absorption (Saturation)	ISO 62:1999	Immersion, 23C	%	0.9	% 0.9
MECHANICAL					
Tensile strength	ISO 527-1/2:1993	Sample Type 1B, 50mm min ⁻¹	MPa	70	psi 10153
E-modulus	ISO 527-1/2:1993	Sample Type 1B, 50mm min ⁻¹	MPa	2700	psi 391603
Elongation at break	ISO 527-1/2:1993	Sample Type 1B, 50mm min ⁻¹	%	15	% 15
Compressive Strength	ISO 604:2002	Sample Type B, 5mm min ⁻¹	MPa	110	psi 15954
Compressive Modulus	ISO 604:2002	Sample Type A, 1mm min ⁻¹	MPa	2600	psi 377099
Flexural Strength*	ISO 178:2001	1.5mm min ⁻¹	MPa	80	psi 11603
Flexural Modulus	ISO 178:2001	1.5mm min ⁻¹	MPa	2600	psi 377099
Izod Impact Strength	ISO 180:2000	Sample Type A (Notched)	KJ/m ²	7.2	ft.lb/in ² 3.43
Charpy Impact Strength	ISO 179-2:1999	Notched	KJ/m ²	-	ft.lb/in ² -
Hardness (Shore D)	ISO 868:2003	-	-	85	- 85
Coefficient of Friction (Dynamic)	-	31.4m/min, 1.75MPa	-	0.25	- 0.25
Limiting PV	-	-	MPa/m.min	6	psi.ft/min 2712
Wear Rate	-	31.4m/min, 1.75MPa	mg/km	-	- -
K-Factor	-	31.4m/min, 1.75MPa	mm ³ /Nm	-	in ³ .min./ft.lb.hr -
THERMAL					
Melting Temperature	-	-	°C	170	°F 338
Glass Transition Temperature (Tg)	ISO 11359-2:1999	-	°C	-	°F -
Heat Deflection Temperature HDT/A	ISO 75	1.80MPa	°C	110	°F 230
Heat Deflection Temperature HDT/B	ISO 75	0.45MPa	°C	160	°F 320
Maximum Intermittent Service Temperature	-	-	°C	140	°F 284
Maximum Continuous Service Temperature	-	5000hrs	°C	90	°F 194
Minimum Intermittent Service Temperature	-	-	°C	-	°F -
Minimum Continuous Service Temperature	-	-	°C	-	°F -
Coefficient of Linear Thermal Expansion (TMA)	ISO 11359-2:1999	23°C - 55°C	°C ⁻¹	9.2 x 10 ⁻⁵	°F ⁻¹ 5.11 x 10 ⁻⁵
Thermal Conductivity	ISO 8301:1991	Mean T = 20°C	W/m.°C	0.31	BTU in/ft.hr.°F 0.18
Flammability	IEC 60695-11-10:2003-08	-	-	HB	- HB
ELECTRICAL					
Dielectric Constant	IEC 60250:1969-01	1MHz	-	3.8	- 3.8
Dielectric Constant (Low Frequency)	-	100Hz	-	-	- -
Dissipation Factor	IEC 60250:1969-01	100Hz	Hz	0.005	Hz 0.005
Dielectric Strength	IEC 60243-1:1998-01	-	kV/mm	17	kV/in 419
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 ¹³	ohm 1 x 10 ¹³
Comparative Tracking Index	IEC 60112:2003-01	-	CTI	600	CTI 600
AVAILABILITY					




ROD: 10 mm Ø → 300 mm Ø 

PLATE: 8 mm = → 100 mm = 

TUBE: 25 mm Ø → 250 mm Ø 

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