

POM C Acetal Copolymer

The copolymer grade is the ideal combination of strength, stiffness and wears resistance. It absorbs very little moisture, is easily machinable and is genuinely porosity-free making it the preferred grade for food contact and medical applications. The product exhibits an elevated resistance to hydrolysis, strong alkalis and thermal-oxidative degradation when compared to acetal homopolymer.

PROPERTY	TEST METHOD	NOTES	METRIC UNITS		IMPERIAL UNITS	
GENERAL						
Colour				White/Black/Blue		White/Black/Blue
Density	ISO 1183:1987	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	%	0.20	%	0.20
Water Absorption (Saturation)	ISO 62:1999	Immersion, 23C	%	0.90	%	0.90
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	7.20	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 (T _g)	ISO 11359-2:1999		°C	-60	°F	-76
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	100 Hz	Hz	0.005	Hz	0.005
Dielectric Strength	IEC 60243-1:1998-01		kV/mm	16.5	kV/in	419.1
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: 5mm - 300mm DIA 

PLATE: 6mm - 100mm THICK 

TUBE: 20mm - 250mm 

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