

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	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	%	0.20	%	0.20
Water Absorption (Saturation)	ISO 62:1999	Immersion, 23C	%	0.90	%	0.90
MECHANICAL						
Tensile Strength	ISO 527-1/2:1993	Sample Type I B, 50mm min ⁻¹	MPa	70	psi	10153
E-modulus	ISO 527-1/2:1993	Sample Type I B, 50mm min ⁻¹	MPa	2700	psi	391603
Elongation at break	ISO 527-1/2:1993	Sample Type I B, 50mm min ⁻¹	%	15	%	15
Compressive Strength	ISO 604:2002	Sample Type I B, 50mm 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)		3.14m/min, 1.75MPa	-	0.25	-	0.25
Limiting PV			MPa/m.min	6	psi.ft/min	2712
Wear Rate		3.14m/min, 1.75MPa	mg/km	-	-	-
K-Factor		3.14m/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	-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 Temp	-		°C	140	°F	284
Maximum Continuous Service Temp	-	5000Hours	°C	90	°F	194
Minimum Intermittent Service Temp	-		°C	-	°F	-
Minimum Continuous Service Temp	-		°C	-	°F	-
Coefficient of Linear Thermal Expansion(TMA)	ISO 11359-2:1999	23°C-55°C	°C ⁻¹	9.2x10 ⁻⁵	°F ⁻¹	5.11x10 ⁻⁵
Thermal Conductivity	ISO 8301:1991	Mean T=20°C	W/m.°C	0.31	BTU in/ft.hr.°F	0.18
Flammability	EC 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 60243-1:1998-01-01		kV/mm	16.5	kV/in	419.1
Volume Resistivity	IEC 60093:1980-01		ohm.m	1x10 ¹³	ohm.in	3.93x10 ¹⁴
Surface Resistivity ROA	IEC 60093:1980-01		ohm	1x10 ¹³	ohm	1x10 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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