

## POM – C (POLYTACETAL) MATERIAL DATA SHEET

- Permanently static dissipative
- Dissipate static charges (5 kV) in less than 2 seconds
- No metal or graphite powder used

POM is an acetal based static dissipative material ideal for material handling applications. It is also an excellent choice for fixturing used in the manufacturing of hard disk drives or for handling in-process silicon wafers.

Applications: Wafer combs, handling trays, inserts, IC device testing fixtures, mechanical engineering, electrical and electronic industries, medical technology.

PROPERTIES	Test methods	Units	VALUES
Color	-	-	Natural/black
Density	ISO 1183-1	g/cm <sup>3</sup>	1.41
Water absorption	ISO 62	%	0.2
<b>Thermal Properties</b>			
Melting temperature	ISO 11357-3	°C	165
Thermal conductivity	DIN 52612-1	W/(K.m)	0.31
Coefficient of linear thermal expansion	DIN 53752	m/(m.K)	110x 10 <sup>-6</sup>
Heat deflection temperature	ISO 75 method A	°C	110
Max. allowable service temperature in air:			
- for short periods	Average	°C	140
- continuously : for min. 20,000 h	Average	°C	100
Min. service temperature	Average	°C	-50
Thermal capacity	DIN 52612	kJ/(kg.K)	1.5
Flammability:			
- according to UL 94 (3 / 6 mm thickness)	-	-	HB / HB
<b>Mechanical Properties at 23°C</b>			
Tension test:			
-yield stress	ISO 527	MPa	67
-elongation at break	ISO 527	%	30
-modulus of elasticity	ISO 527	MPa	2800
Charpy impact strength - notched	ISO 179	kJ/m <sup>2</sup>	6
Ball indentation hardness	ISO 2039-1	MPa	150
Shore hardness	ISO 868	Scale D	81
<b>Electrical Properties at 23 °C</b>			
Electric strength	IEC 60243-1	kV/mm	-
Volume resistivity	IEC 60093	Ohm.cm	10 <sup>13</sup>
Surface resistivity	ANSI/ESD STM 11.11	Ohm/sq	10 <sup>13</sup>
Comparative tracking index	IEC 60112	-	600
Dielectric dissipation factor (tan δ at 50 Hz)	IEC 60250	-	0.002
Dielectric constant	IEC 60250	-	3.8

Note: 1 g/cm<sup>3</sup> = 1,000 kg/m<sup>3</sup> ; 1 MPa = 1 N/mm<sup>2</sup> ; 1 kV/mm = 1 MV/m.

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