

ADVANCED INDUSTRIAL

HIGH PERFORMANCE PLASTIC SHAPES // PRECISION CNC MACHINED COMPONENTS



ESD ACETAL

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

natural opaque

Density

1.33 g/cm³

Fillers

antistatic agent

Main features

- non-sloughing
- easy to machine
- good wear properties
- good chemical resistance
- good mechanical properties
- antistatic

Target Industries

- aircraft and aerospace technology
- protection of electronics
- computer technology
- explosion protection
- mining industry
- business machines
- conveyor technology

Mechanical properties	condition	value		test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	189,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield	@ 73 °F	5,000	psi	ASTM D 638	
Elongation at yield	@ 73 °F	23	%	ASTM D 638	1)
Elongation at break		20	%	ASTM D 638	
Flexural strength		7,000	psi	ASTM D 790	
Modulus of elasticity (flexural test)		210,000	psi	ASTM D 790	
Compression strength	@10% strain	6,700	psi	ASTM D 695	
Compression modulus	@ 73 °F	150,000	psi	ASTM D 695	
Impact strength (Izod)		1.6	ft-lbs/in	ASTM D 256	
Coefficient of friction	Dynamic	0.18		-	
Coefficient of friction	Static	0.11		-	
Thermal properties	condition	value		test method	comment
Melting temperature		329	°F	-	1)
Deflection temperature	@264 psi	190	°F	ASTM D 648	(2) Data obtained from public source
Service temperature	short term	284	°F	-	2)
Service temperature	Long Term	212	°F	-	3)
Thermal expansion (CLTE)		1.6*10 ⁻⁵	in/in/°F	-	4)
Electrical properties	condition	value		test method	comment
Specific surface resistance		10 ⁹ -10 ¹¹	Ω/square	ASTM D 257	(1) Data obtained from public source
Dielectric strength		500	V/mil	-	1)
Other properties	condition	value		test method	comment
Moisture absorption	@24 hr, 73 °F	1.4	%	ASTM D 570	
Flammability (UL94)		HB		-	

→ Resin specification:
ASTM D6778-06 POM0200 superseding ASTM D4181-00 POM200
Shapes specification:
ASTM D6100-11 S-POM0200

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