

Celcon® M-25 rust (TECAFORM® AH MT) - Stock Shapes (rods, plates, tubes)

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

rustred

Density

1.41 g/cm³

Main features

- meets requirements for USP Class VI
- compliant with cytotoxicity according to ISO 10993-5
- good machinability

Target Industries

- medical technology
- pharmaceutical industry

Mechanical properties	condition	value	unit	test method	comment
Modulus of elasticity (tensile test)		390,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield		9,400	psi	ASTM D 638	
Tensile strength at break	@ 73 °F	10,000	psi	ASTM D 638	1)
Elongation at yield (tensile test)		10	%	ASTM D 638	
Elongation at break (tensile test)		28	%	ASTM D 638	
Flexural strength		13,400	psi	ASTM D 790	
Modulus of elasticity (flexural test)		411,000	psi	ASTM D 790	
Compression strength	@ 73 °F, 1% strain	2,900	psi	ASTM D 695	
Compression strength	@ 73 °F, 10% strain	13,500	psi	ASTM D 695	
Compression modulus	@ 73 °F	273,600	psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	.85	ft-lbs/in	ASTM D 256	
Thermal properties	condition	value	unit	test method	comment
Melting temperature		320	°F	-	1) (1) per ASTM D3418
Deflection temperature	@264 psi	230	°F	ASTM D 648	2) (2) Data obtained from public source
Service temperature	Long Term	212	°F	-	3) (3) Data obtained from public source
Service temperature	short term	284	°F	-	3) (4) data obtained from public source
Thermal expansion (CLTE)	@ 73°F to 131°F	5.5*10 ⁻⁵	in/in/°F	ASTM E 831	4)
Electrical properties	condition	value	unit	test method	comment
surface resistivity		10 ¹⁴	Ω/square	DIN IEC 60093	1) (1) data obtained from public sources
volume resistance		10 ¹⁴	Ω*cm	DIN IEC 60093	2) (2) data obtained from public sources
Dielectric loss factor		0.003		DIN IEC 60250	3) (3) data obtained from public sources
Dielectric constant	@ 10 ⁵ Hz	3.5		DIN IEC 60250	4) (4) data obtained from public sources
Other properties	condition	value	unit	test method	comment
Moisture absorption	@ 24 hrs.	0.12	%	ASTM D 570	

→ Resin specification:
ASTM D6778-14 POM0210B55340
Shapes specification:
ASTM D6100-11 S-POM0211

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