

Celcon® M-25 (TECAFORM® MT) - Stock Shapes

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

various

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		test method	comment
Modulus of elasticity (tensile test)		320,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield		8,500	psi	ASTM D 638	(2) Data obtained from public sources
Tensile strength at break	@ 73 °F	10,000	psi	ASTM D 638	(3) Data obtained from public sources 1)
Elongation at yield		15	%	ASTM D 638	(4) Data obtained from public source
Elongation at break		30	%	ASTM D 638	(5) Data obtained from public source
Flexural strength		13,600	psi	ASTM D 790	2)
Modulus of elasticity (flexural test)		406,000	psi	ASTM D 790	3)
Compression modulus	@ 73 °F	319,000	psi	ASTM D 695	4)
Impact strength (Izod)	@ 73 °F	1.0	ft-lbs/in	ASTM D 256	5)
Time yield limit	to 1% elongation after 1000 hrs	1,890	psi	-	
Thermal properties	condition	value		test method	comment
Melting temperature		320	°F	-	1) (1) per ASTM D3418
Deflection temperature	@264 psi	230	°F	ASTM D 648	(2) Data obtained from public source
Service temperature	Long Term	212	°F	-	
Service temperature	short term	284	°F	-	2)
Thermal expansion (CLTE)	@ 73°F to 131°F	5.5*10 ⁻⁵	in/in/°F	ASTM E 831	
Electrical properties	condition	value		test method	comment
Specific surface resistance		10 ¹⁴	Ω/square	DIN IEC 60093	1) (1) Injection molded data
Volume resistivity		10 ¹⁴	Ω*cm	DIN IEC 60093	2) (2) Injection molded data
Dielectric loss factor		0.003		DIN IEC 60250	3) (3) Injection molded data
Dielectric constant	@ 10 ⁵ Hz	3.5		DIN IEC 60250	4) (4) Injection molded data
Other properties	condition	value		test method	comment
Moisture absorption	@ saturation, 73 °F	0.1	%	ASTM D 570	1) (1) Data obtained from public sources
Moisture absorption	@ 24 hrs.	.05	%	ASTM D 570	2) (2) Data obtained from public sources
Flammability (UL94)		HB	%	-	

→ Resin specification:
ASTM D6778-06 POM211B55340
Shapes specification:
ASTM D6100-11 S-POM0211

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