

TECAFORM® AH natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

POM-C (Polyacetal (Copolymer))

Colour

white

Density

1.41 g/cm³

Main features

- porosity free
- good wear properties
- low water absorption
- good chemical resistance
- easy to machine
- high dimensional stability

Target Industries

- food technology
- food processing
- agricultural machinery
- construction industry
- conveyor technology
- automotive industry
- gear manufacturing
- packaging and paper machinery
- heavy duty industry
- process engineering

Mechanical properties	condition	value	unit	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	330,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield	@ 73 °F	9,300	psi	ASTM D 638	(2) Data obtained from public source
Tensile strength at break	@ 73 °F	9,700	psi	ASTM D 638	1)
Elongation at yield (tensile test)	@ 73 °F	9	%	ASTM D 638	2)
Elongation at break (tensile test)	@ 73 °F	40	%	ASTM D 638	
Flexural strength	@ 73 °F	13,000	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	400,000	psi	ASTM D 790	
Compression strength	@ 73 °F, 5 % strain	4,500	°F	ASTM D 695	
Compression strength	@ 73 °F, 1% strain	2,500	psi	ASTM D 695	
Compression strength	@ 73 °F, 10% strain	12,000	psi	ASTM D 695	
Compression modulus	@ 73 °F	250,000	psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	1.0	ft-lbs/in	-	
Rockwell hardness	@ 73 °F M Scale	86		ASTM D 785	
Rockwell hardness	@ 73 °F, R scale	120		ASTM D 785	
Coefficient of friction	Dynamic 40 psi, 50 fpm	.21		ASTM D 3702	
Wear (K) factor	40 psi, 50 fpm	65 x 10 ⁻¹⁰	in ³ -min/ft-lbs-hr	ASTM D 3702	
Thermal properties	condition	value	unit	test method	comment
Melting temperature		329	°F	-	(1) per UL746B
Deflection temperature	@ 66 psi	316	°F	ASTM D 648	
Deflection temperature	@264 psi	230	°F	ASTM D 648	
Service temperature	Intermittent	285	°F	-	
Service temperature	Long Term	195	°F	-	1)
Thermal expansion (CLTE)		4.7*10 ⁻⁵	in/in/°F	ASTM D 696	
Electrical properties	condition	value	unit	test method	comment
volume resistance		1.0 x 10 ¹⁴	Ω*cm	ASTM D 257	1)
Dielectric strength		500	V/mil	ASTM D 149	2)
Dissipation factor	@ 60 Hz, 73 °F	.001	%	ASTM D 150	3)
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	3.7	%	ASTM D 150	4)
Other properties	condition	value	unit	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.18	%	ASTM D 570	(1) at 1.5mm thickness
Moisture absorption	@ saturation, 73 °F	.80	%	ASTM D 570	injection molded sample
Flammability (UL94)	UL 94	HB	%	-	1)

→ Resin specification:
ASTM D6778-06 POM0211 superseding ASTM D4181-00 POM211
Shapes specification:
ASTM D6100-11 S-POM211

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