

## TECAFORM® AH Acetal Copolymer - Stock Shapes

### Chemical Designation

POM-C (Polyacetal (Copolymer))

### Colour

white black

### Density

1.41 g/cm<sup>3</sup>

### Main features

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

### Target Industries

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

Mechanical properties	condition	value	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	380,000 psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield	@ 73 °F	8,800 psi	ASTM D 638	(2) Data obtained from public source
Tensile strength at break	@ 73 °F	9,700 psi	ASTM D 638	(3) @5% strain
Elongation at yield	@ 73 °F	9 %	ASTM D 638	(4) Data obtained from public source
Elongation at break	@ 73 °F	25 %	ASTM D 638	
Flexural strength	@ 73 °F	11,000 psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	360,000 psi	ASTM D 790	
Compression strength		4,500 psi	ASTM D 695	3)
Compression modulus	@ 73 °F	334,000 psi	ASTM D 695	4)
Impact strength (Izod)	@ 73 °F	1.0 ft-lbs/in	-	
Rockwell hardness	@ 73 °F M Scale	86 %	ASTM D 785	
Coefficient of friction	Dynamic 40 psi, 50 fpm	.21	ASTM D 3702	
Wear rate	40 psi, 50 fpm	65 x 10 <sup>-10</sup> in <sup>3</sup> -min/ft-lbs-hr	ASTM D 3702	
Thermal properties	condition	value	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 <sup>-5</sup> in/in/°F	ASTM D 696	
Electrical properties	condition	value	test method	comment
Volume resistivity		1.0 x 10 <sup>14</sup> Ω*cm	ASTM D 257	
Dielectric strength		500 V/mil	ASTM D 149	
Dissipation factor	@ 60 Hz, 73 °F	.001 %	ASTM D 150	
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	3.7 %	ASTM D 150	
Other properties	condition	value	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	.22 %	ASTM D 570	(1) at 1.5mm thickness injection molded sample
Moisture absorption	@ saturation, 73 °F	.80 %	ASTM D 570	
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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