

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

### Chemical Designation

POM-C (Polyacetal (Copolymer))

### Colour

white black

### Density

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

### Main features

- porosity free
- 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	330,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield	@ 73 °F	9,300	psi	ASTM D 638	
Elongation at yield (tensile test)	@ 73 °F	9	%	ASTM D 638	1)
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	psi	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 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	316	°F	ASTM D 648	
Deflection temperature	230	°F	ASTM D 648	
Service temperature	285	°F	-	
Service temperature	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 resistance	1.0 x 10 <sup>14</sup>	Ω*cm	ASTM D 257	
Dielectric strength	500	V/mil	ASTM D 149	
Dissipation factor	.001	%	ASTM D 150	
Dielectric constant	3.7	%	ASTM D 150	
<b>Other properties</b>	<b>condition</b>	<b>value</b>	<b>test method</b>	<b>comment</b>
Moisture absorption	@ 24 hrs, 73 °F	0.18	ASTM D 570	
Moisture absorption	@ saturation, 73 °F	.80	ASTM D 570	(1) at 1.5mm thickness 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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