

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

## Chemical Designation

POM-C (Polyacetal (Copolymer))

## Colour

white

## 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

- 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

### 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 <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 resistance	1.0 x 10 <sup>14</sup>	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

### test method

### comment

Moisture absorption	@ 24 hrs, 73 °F	0.18	%	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

This information reflects the current state of our knowledge and is intended only to assist and advise. It is given without obligation or liability. It does not assure or guarantee chemical resistance, quality of products or their suitability in any legally binding way. Values are not minimum or maximum values, but guidelines that can be used for comparative purposes in material selection. They are within the normal range of product properties and do not represent guaranteed property values. Testing under individual application circumstances is always recommended. Data is obtained from extruded shapes material unless otherwise noted. References to FDA compliance refer to the resins from which the products were made unless otherwise noted. All trade and patent rights should be observed. All rights reserved. Data sheet values are subject to periodic review, the most recent update can be found at [www.ensingerplastics.com](http://www.ensingerplastics.com).