

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

### Chemical Designation

POM-C (Polyacetal (Copolymer))

### Colour

blue

### Density

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

### Main features

- food grade blue
- low moisture absorption
- easily machinable to tight tolerance
- good mechanical properties
- good wear properties
- porosity free

### Target Industries

- food processing
- food technology
- food engineering
- packaging and paper machinery
- conveyor technology
- engineering for beverage filling systems
- pharmaceutical industry

Mechanical properties	condition	value	unit	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	250,000	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) Data obtained from public source
Elongation at yield (tensile test)	@ 73 °F	9	%	ASTM D 638	(4) Injection molded data
Elongation at break (tensile test)	@ 73 °F	25	%	ASTM D 638	(5) Injection molded data
Flexural strength	@ 73 °F	12,000	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	400,000	psi	ASTM D 790	
Compression strength	@ 73 °F, 1% strain	1,200	psi	ASTM D 695	
Compression strength	@ 73 °F, 10% strain	11,500	psi	ASTM D 695	(3)
Impact strength (Izod)	@ 73 °F	1.1	ft-lbs/in	ASTM D 256	
Rockwell hardness	M Scale	86		ASTM D 785	
Coefficient of friction	Dynamic, 40 psi, 50 fpm	0.21	%	ASTM D 3702	(4)
Wear rate	Against Steel, 40 psi, 50 fpm	65*10 <sup>-10</sup>	in <sup>3</sup> -min/ft-lbs-hr	ASTM D 3702	(5)
Thermal properties	condition	value	unit	test method	comment
Melting temperature		329	°F	-	(1) publicly sourced data
Deflection temperature	@ 66 psi	316	°F	ASTM D 648	(2) publicly sourced data
Deflection temperature	@ 264 psi	230	°F	ASTM D 648	(3) publicly sourced data
Service temperature	Intermittent	285	°F	-	(4) publicly sourced data
Service temperature	Long Term	195	°F	-	(5) publicly sourced data
Thermal expansion (CLTE)		4.7*10 <sup>-5</sup>	in/in/°F	ASTM D 696	(6) publicly sourced data
Electrical properties	condition	value	unit	test method	comment
volume resistance		1.0*10 <sup>-14</sup>	Ω*cm	ASTM D 257	(1) publicly sourced data
Dielectric strength		500	V/mil	ASTM D 149	(2) publicly sourced data
Dissipation factor	@ 60HZ, 73°F	0.001		-	(3) publicly sourced data
Dielectric loss factor	@ 60 Hz, 70°	0.001		ASTM D 150	(4) publicly sourced data
Dielectric constant	@ 60HZ, 73°F, 50% RH	3.7		ASTM D 150	(5) publicly sourced data
Other properties	condition	value	unit	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.22	%	ASTM D 570	
Moisture absorption	@ saturation, 73 °F	0.8	%	ASTM D 570	

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

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