

## 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

#### 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	1)
Elongation at yield (tensile test)	@ 73 °F	9	%	ASTM D 638	2)
Elongation at break (tensile test)	@ 73 °F	25	%	ASTM D 638	(4) Injection molded data (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

#### test method

#### comment

Melting temperature	329	°F	-	1)	(1) publicly sourced data
Deflection temperature	316	°F	ASTM D 648	2)	(2) publicly sourced data
Deflection temperature	230	°F	ASTM D 648	3)	(3) publicly sourced data
Service temperature	285	°F	-	4)	(4) publicly sourced data
Service temperature	195	°F	-	5)	(5) publicly sourced data
Thermal expansion (CLTE)	4.7*10 <sup>-5</sup>	in/in/°F	ASTM D 696	6)	(6) publicly sourced data

### Electrical properties

#### condition

#### value

#### test method

#### comment

volume resistance	1.0*10 <sup>-14</sup>	Ω/square	ASTM D 257	1)	(1) publicly sourced data
Dielectric strength	500	V/mil	ASTM D 149	2)	(2) publicly sourced data
Dissipation factor	@ 60HZ, 73°F	0.001	-	3)	(3) publicly sourced data
Dielectric loss factor	@ 60 Hz, 70°	0.001	ASTM D 150	4)	(4) publicly sourced data
Dielectric constant	@ 60HZ, 73°F, 50% RH	3.7	ASTM D 150	5)	(5) publicly sourced data

### Other properties

#### condition

#### value

#### 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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