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

Chemical Designation
POM-C (Polyacetal (Copolymer))

Colour
white

Density
1.41 g/cm^3

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	unit	test method		comment
Modulus of elasticity (tensile test)	@ 73 °F	330,000	psi	ASTM D 638		(1) Data obtained from public source (2) Data obtained from public source
Tensile strength at yield	@ 73 °F	9,300	psi	ASTM D 638		
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^{-10}	in³-min/ft-lbs-hr	ASTM D 3702		

Thermal properties	condition	value	unit	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^{-5}	in/in/°F	ASTM D 696		

Electrical properties	condition	value	unit	test method		comment
volume resistance		1.0 x 10^{14}	Ω*cm	ASTM D 257	1)	(1) Data obtained from public source (2) Data obtained from public source (3) Data obtained from public source (4) Data obtained from public source
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	unit	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

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