

TECAFORM® AD HPV13 brown - Stock Shapes (rods, plates, tubes)

Chemical Designation

POM-H (Polyacetal (Homopolymer))

Colour

brown

Density

1.5 g/cm³

Fillers

PTFE powder

Main features

- very good slide and wear properties
- good mechanical properties
- good machinability
- good chemical resistance
- low water absorption
- good dimensional stability

Target Industries

- food processing
- food technology
- conveyor technology
- power engineering
- gear manufacturing
- packaging and paper machinery
- business machines

Mechanical properties	condition	value	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	380,000 psi	ASTM D 638	(1) publicly sourced data (2) publicly sourced data (3) publicly sourced data
Tensile strength at yield	@ 73 °F	7700 psi	ASTM D 638	
Elongation at break (tensile test)	@ 73 °F	10 %	ASTM D 638	
Flexural strength	@ 73 °F	13,000 psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	450,000 psi	ASTM D 790	
Compression strength	@ 73 °F, 10% strain	13,000 psi	ASTM D 695	
Compression strength	@ 73 °F, 1% strain	3000 psi	ASTM D 695	
Compression modulus	@ 73 °F	240,000 psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	1.5 ft-lbs/in	ASTM D 256	
Rockwell hardness	R Scale @ 73 °F	118	ASTM D 785	
Rockwell hardness	M Scale, @ 73 °F	78	ASTM D 785	
Coefficient of friction	Static	0.07	ASTM D 3702	1)
Coefficient of friction	Dynamic, 40 psi, 50 fpm	0.12	ASTM D 3702	2)
Wear rate	Against Steel, 40 psi, 50 fpm	20*10 ⁻¹⁰ in ³ -min/ft-lbs-hr	ASTM D 3702	3)
Thermal properties	condition	value	test method	comment
Melting temperature		347 °F	-	1)
Deflection temperature	@264 psi	244 °F	ASTM D 648	2)
Deflection temperature	@ 66 psi	334 °F	ASTM D 648	3)
Service temperature	Long Term	185 °F	-	4)
Thermal expansion (CLTE)	range 85F to 140F	6.8*10 ⁻⁵ in/in/°F	ASTM D 696	5)
Other properties	condition	value	test method	comment
Limiting PV	@ 100 fpm	1,600 ft-lbs/min	-	1)
Limiting PV	@ 10 fpm	12,000 ft-lbs/min	-	2)
Moisture absorption	@ 24 hrs, 73 °F	0.12 %	ASTM D 570	

→ Resin specification:
ASTM D6778-06 POM0110 L13 B57230 superseding ASTM D4181-00 POM110L13A00000
Shapes specification:
ASTM D6100-11 S-POM0132

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