

TECAFORM AH TF 10

Chemical Designation: Polyoxymethylene (Copolymer)
(Acetal)

DIN Abbreviation: POM

Colour, Filler: Opaque
PTFE

TECAFORM AH TF is a semi-crystalline thermoplastic bearing material with a low coefficient of friction, high strength and rigidity and excellent machinability

Main characteristics:

- Very good sliding properties
- Tough
- Resistant to hot water, dilute acids, cleaning agents, numerous solvents
- Strong and rigid
- Very good electrical insulation
- Difficult to bond
- Easily machined

Preferred fields: Mechanical engineering, automotive engineering, transport and conveyor technology, textile machinery, electrical engineering, precision engineering, process engineering, packaging machinery, dispensing machinery

Applications:

- Friction bearings
- Gears
- Wiper blades
- Chain guides
- Friction strips
- Seals
- Insulating bushes
- Rollers

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The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.

Properties	Unit	Test method DIN EN ISO / ASTM	
Mechanical			
Density	g/cm ³	527 / D 792	1.44
Tensile strength at yield	MPa	527 / D 638	50
Tensile strength at break	MPa	527 / D 638	
Elongation at break	%	527 / D 638	12
Modulus of elasticity in tension	MPa	527 / D 638	2300
Modulus of elasticity in flexure	MPa	178 / D 790	
Hardness Shore D	MPa	2039 / 1	81
Impact strength	kJ/m ²	179 / D 256	60
Creep rupture strength after 1000 hrs with static load	MPa		
Time yield limit for 1% elongation after 1000 hrs.	MPa		
Coefficient of friction against hardened and ground steel p = 0,05 N/mm ² , v = 0,6 m/s	-		
Wear conditions as above	µm/km		
Thermal			
Crystalline melting point	°C	DIN 53 736	165
Glass transition temperature	°C	DIN 53 736	-60
Heat distortion temperature Method A Method B	°C °C	R 75 R 75	98

Properties	Unit	Test method DIN EN ISO / ASTM	
Thermal			
Max. service temperature short term long term	°C °C		140 100
Coefficient of thermal conductivity	W/(m · K)		
Specific heat	J/(g · K)		
Coefficient of thermal expansion	10 ⁻⁵ /K	DIN 53 483 / D 696	
Electrical			
Dielectric constant at 10 ⁵ Hz		DIN 53 483	
Dielectric loss factor at 10 ⁵ Hz		DIN 53 483	
Specific volume resistance	Ω · cm	DIN 60093	
Surface resistance	Ω	DIN 60093	
Dielectric strength 1 mm	kV/mm	ASTM 149	
Tracking resistance		53 480	
Miscellaneous			
Moisture absorption: Equilibrium in standard atmosphere (23 °C / 50 % relative humidity)	%	62	
Water absorption at saturation at 23 °C	%	62	
Resistance to hot water, washing soda			limited resistant
Flammability according to UL standard 94			HB
Resistance to weathering			not resistant

ENSINGER: Production and stock programme

- Semi-finished product, finished parts, injection moulded parts and profiles in more than 500 materials and modifications.
- Engineering plastics: PA extruded or cast, POM, PC, PET, PBT, PPE, PP, PE
- High temperature plastics: PI, TPI, PEEK, PPS, PES, PPSU, PEI, PSU, PVDF, PCTFE, PTFE
- Stock length: Standard 3 metres. Cast rod and sheet 2 mts. Tube up to 3.5 mts. PE, PP, PVC, and PTFE 2 mts
- Pressed/sintered semi-finished product: PI, PEEK, PPS, PTFE/PI and modifications, as well as PCTFE in special sizes ie, large discs, tubes and rings with diameters up to about 1400 mm
- Material modifications: eg. glass, carbon and aramid fibre, talc, MoS₂, graphite, PTFE, PE, silicone oil, internal lubrication