

TECAFORM AH

Chemical Designation: Polyoxymethylene (Copolymer)
(Acetal)

DIN Abbreviation: POM

Colour, Filler: Opaque

TECAFORM AH is a semi-crystalline thermoplastic engineering material with high strength and rigidity, excellent machinability and versatility of application

Main characteristics:

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

Preferred fields: Mechanical engineering, automotive engineering, transport and conveyor technology, electrical engineering, precision engineering, household appliances, food technology, medical technology

Applications:

- Friction bearings
- Gears
- Tool supports
- Housing parts
- Rollers
- Friction strips
- Plugs
- Insulators
- Agitators and kneading elements
- Seals

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TECAFORM AH

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 ASTM	
Mechanical			
Density	g/cm ³	53 479	1.41
Tensile strength at yield	MPa	ISO 527	60
Tensile strength at break	MPa	ISO 527	
Elongation at break	%	ISO 527	30
Modulus of elasticity in tension	MPa	ISO 527	2700
Modulus of elasticity in flexure	MPa	ISO 527	
Ball indentation hardness	MPa	53 456	145
Impact strength (Charpy)	kJ/m ²	ISO 179	no br.
Creep rupture strength after 1000 hrs with static load	MPa		40
Time yield limit for 1% elongation after 1000 hrs.	MPa		13
Coefficient of friction against hardened and ground steel p = 0,05 N/mm ² , v = 0,6 m/s	–		0.32
Wear conditions as above	µm/km		8.9
Thermal			
Crystalline melting point	°C	53 736	165
Glass transition temperature	°C	53 736	- 60
Heat distortion temperature Method A Method B	°C °C	ISO 75 ISO 75	110 160

Properties	Unit	Test method DIN ASTM	
Thermal			
Max. service temperature short term long term	°C °C		140 100
Coefficient of thermal conductivity	W/(m · K)		0.31
Specific heat	J/(g · K)		1.5
Coefficient of thermal expansion	10 ⁻⁵ /K		10
Electrical			
Dielectric constant at 10 ⁵ Hz		53 483	3.5
Dielectric loss factor at 10 ⁵ Hz		53 483	0.003
Specific volume resistance	Ω · cm	53 482	10 ¹⁴
Surface resistance	Ω	53 482	10 ¹⁴
Dielectric strength 1 mm	kV/mm	53 481	>50
Tracking resistance		53 480	KA 3c
Miscellaneous			
Moisture absorption: Equilibrium in standard atmosphere (23 °C / 50 % relative humidity)	%	ISO 62	<0.3
Water absorption at saturation at 23 °C	%	ISO 62	0.5
Resistance to hot water, washing soda			limited resistant
Flammability according to UK 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