

TECAFORM AH GF 25

Chemical Designation: Polyoxymethylene (Copolymer)
(Acetal)

DIN Abbreviation: POM GF 30

Colour, Filler: Greyish white
25% glass fibre

TECAFORM AH GF 30 is a 25% glass fibre reinforced semi-crystalline engineering thermoplastic with very high rigidity and strength for varied applications.

Main characteristics:

- Strong and very rigid
- Resistant to hot water, dilute acids, cleaning agents, numerous solvents
- Good electrical insulation
- Abrasion resistant
- Easily machined
- Difficult to bond
- Easily welded

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

Applications:

- Thermal insulating profiles
- Levers
- Spring elements
- Housing parts
- Rollers
- Plug strips
- Plugs
- Insulators
- Snap fit connectors
- Mountings

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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	1.58
Tensile strength at yield	MPa	527 / D 638	
Tensile strength at break	MPa	527 / D 638	130
Elongation at break	%	527 / D 638	3
Modulus of elasticity in tension	MPa	527 / D 638	9000
Modulus of elasticity in flexure	MPa	178 / D 790	
Ball indentation hardness	MPa	2039 / 1	195
Impact strength	kJ/m ²	179 / D 256	40
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	

Properties	Unit	Test method DIN EN ISO / ASTM	
Thermal			
Max. service temperature short term	°C		140
long term	°C		100
Coefficient of thermal conductivity	W/(m · K)		
Specific heat	J/(g · K)		
Coefficient of thermal expansion	10 ⁻⁶ /K	DIN 53 483 / D 696	3
Electrical			
Dielectric constant at 10 ⁵ Hz		DIN 53 483	4.8
Dielectric loss factor at 10 ⁵ Hz		DIN 53 483	0.005
Specific volume resistance	Ω · cm	DIN 60093	10 ¹⁴
Surface resistance	Ω	DIN 60093	10 ¹²
Dielectric strength 1 mm	kV/mm	ASTM 149	>50
Tracking resistance		53 480	
Miscellaneous			
Moisture absorption: Equilibrium in standard atmosphere (23 °C / 50 % relative humidity)	%	62	0.15
Water absorption at saturation at 23 °C	%	62	
Resistance to hot water, washing soda			
Flammability according to UL standard 94			
Resistance to weathering			

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