

TECAFORM AD AF

Chemical Designation :	Polyoxymethylen (Homopolymer)
DIN–Abbreviation:	POM–H
Colours, fillers:	brown, PTFE

Main features

- | very good sliding properties
- | strong
- | very good electrical insulation
- | tough
- | easily machined
- | rigid
- | resistant to cleaning agents and numerous solvents and detergents
- | difficult to bond
- | not resistant to hot water over 60° C

Preferred Fields

- | mechanical engineering
- | transport and conveyor technology
- | electrical engineering
- | process technology
- | automotive engineering
- | textile machinery
- | precision engineering
- | packaging and paper processing machinery

Applications

Plain bearings, friction plates, gear wheels, seals, wiper blades, insulating bushes, chain guides, rollers.

Properties

Mechanical

	dry / moist		standard
Tensile strength at yield	50	MPa	DIN EN ISO 527
Elongation at yield		%	
Tensile strength at break		MPa	
Elongation at break	10	%	DIN EN ISO 527
Modulus of elasticity in tension	2900	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test	2410	MPa	DIN EN ISO 178
Hardness			
Impact strength 23° C (Charpy)	40	KJ/m ²	DIN EN ISO 179 (Charpy)
Creep rupture strength after 1000 h with static load		MPa	
Time yield limit for 1% elongation after 1000 h		MPa	
Co-efficient of friction p = 0,05 N/mm ² v=0,6 m/s on steel, hardened and ground	0,14		
Wear p = 0,05 N/mm ² v=0,6 m/s on steel, hardened and ground		µm/km	

Thermal

	dry / moist		standard
Crystalline melting point		°C	
Glass transition temperature	-60	°C	DIN 53 765
Heat distortion temperature HDT, Method A	118	°C	ISO-R 75 Verfahren A (DIN 53 461)
Heat distortion temperature HDT, Method B	168	°C	ISO-R 75 Verfahren B (DIN 53 461)
Max. service temperature			
short term	150	°C	
long term	110	°C	
Thermal conductivity (23° C)		W/(K·m)	
Specific heat (23° C)		J/g.K	
Coefficient of thermal expansion (23-55°C)	12	10 ⁻⁵ /K	DIN 53 752

Properties

Electrical	dry / moist		standard
Dielectric constant (10^6 Hz)	3,1		DIN 53 483, IEC-250
Dielectric loss factor (10^6 Hz)	0,009		DIN 53 483, IEC-250
Specific volume resistance	$> 10^{15}$	$\Omega \cdot \text{cm}$	DIN IEC 60093
Surface resistance	$> 10^{15}$	Ω	DIN IEC 60093
Dielectric strength	15	kV/mm	DIN 53 481, IEC-243, VDE 0303 Teil 2
Resistance to tracking			

Miscellaneous	dry / moist		standard
Density	1,54	g/cm^3	DIN 53 479
Moisture absorption (23°C/50RH)	0,18	%	DIN EN ISO 62
Water absorption to equilibrium	0,72	%	DIN EN ISO 62
Flammability acc. to UL standard 94	HB		

(1) Testing of semi-finished products

The above information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of chemical resistance, of certain properties and the suitability of our products and their applications. Our products are not destined for use in medical and dental implants. Existing commercial patents must be observed. Unless otherwise stated, these values represent averages taken from injection moulding samples, dry as moulded. We reserve the right to make technical alterations.
