

TECAFORM AH

Chemical Designation :

DIN-Abbreviation:

Colours, fillers:

Polyoxymethylen (Copolymer)

POM-C

opak

Main features

- | | |
|---------------------------------|--------------------------------|
| strong | rigid |
| tough | good sliding properties |
| resistant to cleaning agents | resistant to numerous solvents |
| very good electrical insulation | difficult to bond |
| easily machined | easily polished |

Preferred Fields

- | | |
|-----------------------------------|------------------------|
| mechanical engineering | automotive engineering |
| transport and conveyor technology | electrical engineering |
| precision engineering | domestic appliance |
| food technology | medical technology |

Applications

friction bearings, friction strips, gears, plugs, tool supports, insulators, housing parts, agitators and kneading elements, rollers, seals

Properties

Mechanical

Tensile strength at yield

Elongation at yield

dry / moist

62

MPa

%

standard

DIN EN ISO 527

Tensile strength at break		MPa	
Elongation at break	30	%	DIN EN ISO 527
Modulus of elasticity in tension	2700	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness	145		DIN 53 456 (Kugeldruckhärte)
Impact strength 23° C (Charpy)	n.b.	KJ/m ²	DIN EN ISO 179 (Charpy)
Creep rupture strength after 1000 h with static load	40	MPa	
Time yield limit for 1% elongation after 1000 h	13	MPa	
Co-efficient of friction p = 0,05 N/mm ² v=0,6 m/s on steel, hardened and ground	0,32		
Wear p = 0,05 N/mm ² v=0,6 m/s on steel, hardened and ground	8,9	µm/km	

Thermal	dry / moist		standard
Crystalline melting point		°C	
Glass transition temperature	-60	°C	DIN 53 765
Heat distortion temperature HDT, Method A	110	°C	ISO-R 75 Verfahren A (DIN 53 461)
Heat distortion temperature HDT, Method B	160	°C	ISO-R 75 Verfahren B (DIN 53 461)
Max. service temperature			
short term	140	°C	
long term	100	°C	
Thermal conductivity (23° C)	0,31	W/(K·m)	
Specific heat (23° C)	1,5	J/g·K	
Coefficient of thermal expansion (23-55°C)	10	10 ⁻⁵ /K	DIN 53 752

Properties

Electrical	dry / moist		standard
Dielectric constant (10^6 Hz)	3,5		DIN 53 483, IEC-250
Dielectric loss factor (10^6 Hz)	0,003		DIN 53 483, IEC-250
Specific volume resistance	10^{14}	$\Omega \cdot \text{cm}$	DIN IEC 60093
Surface resistance	10^{14}	Ω	DIN IEC 60093
Dielectric strength	>50	kV/mm	DIN 53 481, IEC-243, VDE 0303 Teil 2
Resistance to tracking	KA 3c		DIN 53 480, VDE 0303 Teil 1

Miscellaneous	dry / moist		standard
Density	1,41	g/cm^3	DIN 53 479
Moisture absorption (23°C/50RH)		%	DIN EN ISO 62
Water absorption to equilibrium	0,5	%	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.
