



Material Data Sheet, December 2007

TECAFORM AD

Chemical Designation :
DIN-Abbreviation:
Colours, fillers:

Acetal homopolymer
POM-H
natural

Main features

- | strong
 - | good sliding properties
 - | very good electrical insulation
 - | difficult to bond
 - | easily machined
 - | resistant to cleaning and disinfecting agents
 - | easily machined and polished
 - | not resistant to hot water over 60° C
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Preferred Fields

- | mechanical engineering
 - | transport and conveyor technology
 - | precision engineering
 - | jig manufacturing
 - | automotive engineering
 - | electrical engineering
 - | domestic appliance
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Applications

Plain bearings, sliding ledges, toothed wheels, plugs, feather elements, insulators, housing parts, snap connections, rollers, seals

Properties

Mechanical	dry / moist	standard
Tensile strength at yield	70	MPa DIN EN ISO 527
Elongation at yield		%
Tensile strength at break		MPa

Elongation at break	25	%	DIN EN ISO 527
Modulus of elasticity in tension	3000	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test	2620	MPa	DIN EN ISO 178
Hardness	170		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	0,34		
Wear p = 0,05 N/mm ² v=0,6 m/s on steel, hardened and ground	4,6	µm/km	

Thermal

dry / moist

standard

Crystalline melting point		°C	
Glass transition temperature	-60	°C	DIN 53 765
Heat distortion temperature HDT, Method A	124	°C	ISO-R 75 Verfahren A (DIN 53 461)
Heat distortion temperature HDT, Method B	170	°C	ISO-R 75 Verfahren B (DIN 53 461)
Max. service temperature			
short term	150	°C	
long term	110	°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 1/K	DIN 53 752

Properties

Electrical	dry / moist	standard
Dielectric constant (10^6 Hz)	3,7	DIN 53 483, IEC-250
Dielectric loss factor (10^6 Hz)	0,005	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	1,42 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.