



Material Data Sheet, December 2005

## TECAFORM AH GF 30

Chemical Designation :

Polyoxymethylen (Copolymer)

DIN-Abbreviation:

POM-C GF 30

Colours, fillers:

30% Glasfasern, grauweiß

### Main features

- strong
- wear resistant
- resistant to numerous solvents
- good electrical insulation
- easily welded

- very rigid
- hot water resistant
- resistant to cleaning agents
- difficult to bond
- easily machined

### Preferred Fields

- mechanical engineering
- transport and conveyor technology
- precision engineering

- automotive engineering
- electrical engineering
- domestic appliance

### Applications

Thermal insulating profiles, plug strips, levers, plugs, spring elements, insulators, housing parts, snap fit connectors, rollers, mountings

### Properties

#### Mechanical

Tensile strength at yield

dry / moist

standard

MPa

Elongation at yield

%

Tensile strength at break

110

MPa

DIN EN ISO 527

Elongation at break	1,5	%	DIN EN ISO 527
Modulus of elasticity in tension	7000	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness	200	MPa	DIN 53 456 (Kugeldruckhärte)
Impact strength 23° C (Charpy)	25	KJ/m <sup>2</sup>	DIN EN ISO 179 (Charpy)
Creep rupture strength after 1000 h with static load		MPa	
Time yield limit for 1% elongation after 1000 h	40	MPa	
Co-efficient of friction $p = 0,05 \text{ N/mm}^2 v=0,6 \text{ m/s}$ on steel, hardened and ground	0,5		
Wear $p = 0,05 \text{ N/mm}^2 v=0,6 \text{ m/s}$ on steel, hardened and ground		µm/km	

Thermal	dry / moist	standard
Crystalline melting point		°C
Glass transition temperature	-60	°C
Heat distortion temperature HDT, Method A	153	°C
Heat distortion temperature HDT, Method B		°C
Max. service temperature		
short term	140	°C
long term	100	°C
Thermal conductivity (23° C)		W/(K·m)
Specific heat (23° C)	1,21	J/g.K
Coefficient of thermal expansion (23–55°C)	2,5	$10^{-5} \text{ 1/K}$
		DIN 53 752

## Properties

### Electrical

	dry / moist	standard
Dielectric constant ( $10^6$ Hz)	4,8	DIN 53 483, IEC-250
Dielectric loss factor ( $10^6$ Hz)	0,005	DIN 53 483, IEC-250
Specific volume resistance	> $10^{13}$	$\Omega \cdot \text{cm}$
Surface resistance	> $10^{13}$	$\Omega$
Dielectric strength	>50	kV/mm
Resistance to tracking	KB>600 KC>600	DIN 53 481, IEC-243, VDE 0303 Teil 2
		DIN 53 480, VDE 0303 Teil 1

### Miscellaneous

	dry / moist	standard
Density	1,61	$\text{g/cm}^3$
Moisture absorption (23°C/50RH)	0,15	%
Water absorption to equilibrium	0,6	%
Flammability acc. to UL standard 94	HB	DIN EN ISO 62

(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.