Material Data Sheet, July 2010

TECAFORM AH TF 20

Chemical Designation :	Polyoxymethylen (Copolymer)
DIN-Abbreviation:	POM-C
Colours, fillers:	opak

Main features

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

Preferred Fields

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

Applications

Friction bearings, sliding rails, gears, seals, wiper blades, insulating bushes, chain guides, rollers

Properties

Mechanical	**dry / moist**		**standard**
Tensile strength at yield	45	MPa	DIN EN ISO 527
Elongation at yield	15	%	DIN EN ISO 527
Tensile strength at break		MPa	
Elongation at break	15	%	DIN EN ISO 527
Modulus of elasticity in tension	2400	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	
Hardness			
Impact strength 23º C (Charpy)	60	KJ/m²	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/mm²v=0,6 m/s on steel, hardened and ground	0,25		
Wear p = 0,05 N/mm²v=0,6 m/s on steel, hardened and ground		µm/km	

Thermal	**dry / moist**		**standard**
Crystalline melting point	165	°C	DIN 53 765
Glass transition temperature	-60	°C	DIN 53 765
Heat distortion temperature HDT, Method A	98	°C	ISO-R 75 Verfahren A (DIN 53 461)
Heat distortion temperature HDT, Method B		°C	
Max. service temperature			
short term	140	°C	
long term	100	°C	
Thermal conductivity (23º C)		W/(K·m)	
Specific heat (23º C)	1,47	J/g.K	
Coefficient of thermal expansion (23-55ºC)	11	10^{-5}1/K	DIN 53 752

Properties

Electrical	**dry / moist**		**standard**
Dielectric constant (10^6 Hz)	3,6		DIN 53 483, IEC-250
Dielectric loss factor (10^6 Hz)	0,005		DIN 53 483, IEC-250
Specific volume resistance	10^12	*cm	DIN IEC 60093
Surface resistance	10^14		DIN IEC 60093
Dielectric strength	51	kV/mm	DIN 53 481, IEC-243, VDE 0303 Teil 2
Resistance to tracking	KC>600		DIN 53 480, VDE 0303 Teil 1

Miscellaneous	**dry / moist**		**standard**
Density	1,52	g/cm^3	DIN 53 479
Moisture absorption (23°C/50RH)	0,2	%	DIN EN ISO 62
Water absorption to equilibrium	0,6	%	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.