ENSINGER
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Material Data Sheet, October 2005

TECAFORM AH LA

Chemical Designation :	Polyoxymethylen (Copolymer)
DIN−Abbreviation:	POM−C
Colours, fillers:	blue, Feststoffgleitmittel

Main features

- very good sliding properties
- rigid
- resistant to numerous detergents
- tough
- good electrical insulation
- wear resistant
- strong
- resistant to xxx acids
- difficult to bond
- easily machined

Preferred Fields

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

Applications

Friction bearings, friction strips, 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	25	%	DIN EN ISO 527
Tensile strength at break		MPa	
Elongation at break		%	
Modulus of elasticity in tension	1600	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test	2100	MPa	DIN EN ISO 178
Hardness	90		ISO 2039/1 (Kugeldruck−Härte, 358N)
Impact strength 23º C (Charpy)	>40	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	~0,2		
Wear p = 0,05 N/mm²v=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	88	°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)	1,5	J/g.K	
Coefficient of thermal expansion (23−55ºC)	16	10^{-5}1/K	DIN 53 752

Properties

Electrical	dry / moist		standard
Dielectric constant (10^6 Hz)	3,8		DIN 53 483, IEC−250
Dielectric loss factor (10^6 Hz)	0,007		DIN 53 483, IEC−250
Specific volume resistance	7*10^13	Ω*cm	DIN IEC 60093
Surface resistance	9*10^13	Ω	DIN IEC 60093
Dielectric strength	35	kV/mm	DIN 53 481, IEC−243, VDE 0303 Teil 2
Resistance to tracking	CTI 600		DIN 53 480, VDE 0303 Teil 1

Miscellaneous	dry / moist		standard
Density	1,35	g/cm^3	DIN 53 479
Moisture absorption (23°C/50RH)	0,2	%	DIN EN ISO 62
Water absorption to equilibrium	0,8	%	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.