Material Data Sheet

POM-H + PTFE

Chemical Designation :	Polyoxymethylen (Homopolymer)
DIN-Abbreviation:	POM-H
Colours, fillers:	anthracite, PTFE

Main features

- very good sliding properties
- strong
- very good electrical insulation
- tough
- easily machined
- rigid
- resistant to cleaning agents and numerous solvents and detergents
- difficult to bond
- not resistant to hot water over 60° C

Preferred Fields

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

Applications

Plain bearings, friction plates, gear wheels, seals, wiper blades, insulating bushes, chain guides, rollers.

Properties

Mechanical	**dry / moist**		**standard**
Tensile strength at yield	50	MPa	DIN EN ISO 527
Elongation at break	8	%	DIN EN ISO 527
Modulus of elasticity in tension	2800	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test	2400	MPa	DIN EN ISO 178
Impact strength 23° C (Charpy)	36	KJ/m²	DIN EN ISO 179 (Charpy)
Co-efficient of friction p = 0,05 N/mm²v=0,6 m/s on steel, hardened and ground	0.08		

Thermal	**dry / moist**		**standard**
Glass transition temperature	-60	°C	DIN 53 765
Heat distortion temperature HDT, Method A	92	°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	150	°C	
long term	110	°C	
Coefficient of thermal expansion (23-55ºC)	10	10^{-5}1/K	ISO 11359-1 und -2

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Electrical	**dry / moist**		**standard**
Dielectric constant (10^6 Hz)	3,1		DIN 53 483, IEC-250
Dielectric loss factor (10^6 Hz)	0,009		DIN 53 483, IEC-250
Specific volume resistance	> 10^15	Ω*cm	DIN IEC 60093
Surface resistance	> 10^15	Ω	DIN IEC 60093
Dielectric strength	15	kV/mm	DIN 53 481, IEC-243, VDE 0303 Teil 2

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Miscellaneous	**dry / moist**		**standard**
Density	1,54	g/cm^3	DIN 53 479
Moisture absorption (23°C/50RH)	0,18	%	DIN EN ISO 62
Water absorption to equilibrium	0,72	%	DIN EN ISO 62
Flammability acc. to UL standard 94	HB		
Resistance to hot water, washing soda:	-		
Resistance to weathering	-		

(1) Testing of semi-finished products

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