




Stock Availability:	
Standard lengths 3 meters, also cut to size	
Rod	3 - 200 mm diameter
Plate	5 - 100 mm thick
Tube	20 mm – 300mm OD
Profiles	
Other dimensions on request	
Finished, machined parts or injection moulded	

Preferred Fields:
Mechanical engineering, automotive engineering, transport and conveyor technology, electrical engineering, precision engineering, domestic appliance, jig manufacturing

Material description:	
DIN Abbreviation:	POM
Chemical Designation:	Polyoxymethylene
Color, Filler:	Opaque / Natural
<p>POM-H is a semi crystalline, thermoplastic engineering material with high strength and rigidity, excellent machining and suitable for varied applications.</p> <ul style="list-style-type: none"> <li>• strong and rigid</li> <li>• very good electrical insulation</li> <li>• good sliding properties</li> <li>• easily machined, polished</li> <li>• resistant to cleaning and disinfecting agents, numerous solvents</li> <li>• not resistant to water over 60 °C</li> <li>• difficult to bond</li> </ul>	

Applications:
<ul style="list-style-type: none"> <li>• plain bearings</li> <li>• sliding ledges</li> <li>• gearwheels</li> <li>• plugs</li> <li>• spring elements</li> <li>• insulators</li> <li>• housing parts</li> <li>• snap connections</li> <li>• rollers</li> <li>• seals</li> </ul>

Colors:
<p>Opaque / Natural </p>

Properties	Unit	Test method DIN /ISO/ ASTM	Value
<b>Mechanical</b>			
Density	g/cm <sup>3</sup>	53 479	1.42
Tensile strength at yield	Mpa	DIN EN ISO 527	70
Tensile strength at break	Mpa		
Elongation at break	%	DIN EN ISO 527	25
Modulus of elasticity in tension	Mpa	DIN EN ISO 527	3000
Modulus of elasticity in flexure	Mpa	DIN EN ISO 178	2620
Ball indentation hardness	Mpa	53 456	170
Impact strength (Charpy)	kJ/m <sup>2</sup>	DIN EN ISO 179	no br.
Creep rupture strength after 1000 hrs with static load	Mpa		40
Time yield limit for 1% elongation after 1000 hrs.	Mpa		13
Coefficient of friction against hardened and ground steel p = 0,05 N/mm <sup>2</sup> , v = 0,6 m/s	-		0,34
Wear conditions as above	µm/km		4,6
<b>Thermal</b>			
Crystalline melting point	°C		
Glass transition temperature	°C	53 765	-60
Heat distortion temperature Method A	°C	ISO R 75 A	124
Method B	°C	ISO R 75 B	170
Max. service temperature short term	°C		150
long term	°C		110
Coefficient of thermal conductivity	W/(m . K)		0.31
Specific heat	J/(g . K)		1,5
Coefficient of thermal expansion	10 <sup>-5</sup> /K	53752	10
<b>Electrical</b>			
Dielectric constant at 106 Hz		53 483, IEC-250	3,7
Dielectric loss factor at 10 <sup>6</sup> Hz		53 483, IEC-250	0,005
Specific volume resistance	Ω . cm	DIN IEC 60093	10 <sup>14</sup>
Surface resistance	Ω	DIN IEC 60093	10 <sup>14</sup>
Dielectric strength 1 mm	kV/mm	53 481, IEC-243, VDE 0303 Teil 2	>50
Tracking resistance		53 480, VDE 0303 Teil 1	KA 3c
<b>Miscellaneous</b>			
Moisture absorption: Equilibrium in standard atmosphere (23 °C / 50 % relative humidity)	%	DIN EN ISO 62	0,3
Water absorption at saturation at 23 °C	%	DIN EN ISO 62	0,5
Resistance to hot water, washing soda			Not resistant
Flammability		UL 94	HB
Resistance to weathering			Not resistant
* after storage in a standard 23/50 atmosphere (DIN 50 014) to equilibrium			

The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.