

Material: Polyacetal (copolymer)

Abbreviation: POM-C



Short description of material:

A high crystalline thermoplastic with good mechanical strength and stiffness as well as good sliding properties and wear resistance. Additional good properties are good dimensional stability and fatigue resistance

Colors: natural (white), black

Application examples:

- gears
- bearings / bushings
- wear strips and plates
- housing
- counting mechanism parts

Mechanical values		dry	
Density	ISO 1183	1,41	g/cm ³
Yield Stress	ISO 527	65	MPa
Elongation due to tearing	ISO 527	40	%
Modulus of elasticity resulting from tensile test	ISO 527	3.000	MPa
Modulus of elasticity resulting from bending test	ISO 178	2.900	MPa
Flexural strength	ISO 178	115	MPa
Impact strength ¹⁾	ISO 179	o.B.	kJ/m ²
Notched –bar impact strength	ISO 179	> 10	kJ/m ²
Ball indentation hardness H _{358/30}	ISO 2039-1	150	MPa
Creep rate stress at 1% elongation ²⁾	DIN 53 444	13	MPa
Sliding friction coefficient against steel (dry running) ³⁾	-----	0,32	-----
Single wear against steel (dry running) ³⁾	-----	8,90	µm/km
Thermal values			
Melting temperature	ISO 3146	+168	°C
Thermal conductivity	DIN 52612	0,31	W/(K·m)
Specific thermal capacity	-----	145	J/(g·K)
Coefficient of linear expansion ⁴⁾	-----	9 -- 10	10 ⁻⁵ ·K ⁻¹
Operating temperature range (long-term) ⁵⁾	-----	-30 / + 100	°C
Operating temperature range (short-term) ⁵⁾	-----	+140	°C
Fire behavior	UL 94	HB	-----
Electrical values			
Dielectric constant ⁶⁾	IEC 250	3,9	-----
Dielectric loss factor ⁶⁾	IEC 250	0,003	----
Specific volume resistance	IEC 93	10 ¹⁵	Ω·cm
Surface resistance	IEC 93	10 ¹³	Ω
Dielectric strength	IEC 243	20	KV/mm
Creep current resistance	IEC112	KA 3c / CTI > 600	----
Miscellaneous data			
Moisture absorption in normal climate until saturated	DIN 53 715	0,2	%
Water absorption until saturated	ISO 62	0,8	%

1; Measured with a pendulum impact testing machine 0,1 DIN 51 222

2; Tension resulting in 1% total elongation after 1.000 h

3; against steel, hardened and ground , P = 0,05 MPa,

V=0,6 m/s, t = 60 °C near running surface

4; For a temperature range of + 23 °C to + 60 °C

5; Experience values established with finished part that are not under any stress in heated air, depending on the type and from of heat exposure, short-term = max. 1 h long term = months 6; at 10⁶ Hz

w.b. = without breakage

1 MPa = 1 N/mm²

1 g/cm³ = 1.000 kg/m³

1 kV/mm = 1 MV/m

Ismat Seals & Hydraulics Inc.

Plot No. E4-05, SAIF Zone,

Sharjah, UAE.

Tel:- 06-5572242.

Fax:- 06-5572243.

URL:- www.ismatseals.com

Email:- sales@ismatseals.com