

POM black

Copolymer, based on methylenoxide - Polyoxymethelene

POM black is a material with high rigidity, excellent wear resistance and high hardness. It is mainly used in gears, bearings and auto parts and any other precision parts.

Mechanical, physical and thermal properties

Material code: 0702H

Properties	Condition	Standard	Unit	Unit	Unit
Color					black
Hardness	23°C	ISO 868	Shore D	81 ± 3	
Density	23°C	ISO 1183	g/cm ³	1,41	kg/m ³ 1410
Ball indentation hardness	23°C	ISO 2039 Part 1 (f:358)	MPa	144	psi 20885
Tensile strength	23°C	DIN 527	MPa	≥60	psi ≥8702
Elongation at break	23°C	DIN 527	%	≥30	
Compression strength	23°C	DIN 53 455	MPa	88	Psi 12800
Thermal conductivity	23°C	DIN 52 612	$\frac{J \times 10^3}{M \times h \times K}$	0,31	
Coefficient of therm. Expansion	23°C-200°C		K ⁻¹ x 10 ⁻⁵	11	
Coefficient of friction*	23°C		μ	0,28	
Minimum service temperature			°C	-45	°F -49
Maximum service temperature			°C	100	°F 212
Young's modulus	23°C	ISO 527	MPa	2500	Psi 362594

*dynamic coefficient of friction, dry, steel, 16MnCr5: v= 0,6 m/s; p=0,05 MPa; t=5h

Resistant to: water, lyes, fuels, alcohol, solvents

Not resistant to: ethers, oxidising chemicals, mineral acids, lower resistance to hot weather and UV