

POM

Polyoxymethelene/Polyacetal

Mechanical, Physical and Thermal Properties

properties	condition	standard	unit	unit	unit	
colour				white	white	
density/specific gravity	23 °C	DIN 53479	kg/m ³	1410	g/cm ³	1,41
hardness	23 °C	ISO 868	Shore D	85 ±3	Shore D	85 ±3
ball indentation hardness 23 °C		DIN 53456 H135/30	MPa	160	psi	23000
tensile strength	23 °C	ASTM D 4745-79	MPa	70	psi	10100
elongation at break	23 °C	ASTM D 4745-79	%	40	%	40
compressive strength	23 °C	DIN 53455	MPa	88	psi	12800
thermal conductivity		DIN 52612	$\frac{J}{m \cdot h \cdot K}$	0,25	$\frac{J}{m \cdot h \cdot K}$	0,25
coefficient of thermal expansion	25 °C - 200 °C		K ⁻¹ * 10 ⁻⁵	11	K ⁻¹ * 10 ⁻⁵	11
coefficient of friction *	23 °C			0,28		0,28
minimum service temperature			°C	-45	°F	-49
maximum service temperature			°C	100	°F	212
young's modulus	23 °C	DIN 53457	MPa	3000	psi	435000

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

Chemical Properties

Copolymer, based on methylenoxide

Resistant to fuels, water, lyes, lubricants, alcohols and solvents

Not resistant to strong mineral acids, oxidising chemicals, ethers; limited resistant to UV radiation and long term hot water

Foodstuff approval: FDA approval