

MOR Plastic Products

MOR PTFE (Polytetrafluoroethylene) Products:

- MOR PTFE can withstand temperature from -200°C up to 260°C.
- It is remarkable for its outstanding chemical inertness, excellent electrical insulating & dielectric properties, low coefficient of friction & flame resistance.
- At cryogenic temperatures it maintains toughness and flexibility.
- The modifier content (<1%) like Carbon, Glass, Bronze, Graphite, MoS₂ (molybdenum disulfide) etc. are available. With suitable filler agents Modified PTFE has excellent wear properties, lower thermal expansion, reduced coefficient of friction & denser polymer structure.

Availability:

- Rods, Bush, Sheets, Diaphragms, bellows, gaskets, Compression Packing, Seals, Wear & Piston Rings, Tapes, wedge sets, O-Rings, FEP cased O-Rings, Back-up Rings, Friction Bearing, Shaft Seal, Piston Rings, Valve Seats/Seat Rings, Liners, Insulators, etc.

Size:

- Skived Sheets (Roll Form) - 0.5mm to 6mm thick, width - 1000mm to 2000mm
- Pressed Sheets (Square Form) - 3mm to 75mm thick, width - 1000mm², 1200mm² & 1500mm²
- Extruded Rods - 6mm to 200mm dia, length - 1000mm/2000mm



PROPERTIES	CONDITION	STANDARD	UNIT	VIRGIN	GRAPHITE	GLASS+MOLLY	GLASS	CARBON	BRONZE
				100% V	15%G + 85%V	15%G+5%MoS ₂ +80%V	25%G+75%V	25%C+75%V	40%B+60%V
Colour				White	Black	Grey	Off White	Black	Brown
Density/ Specific gravity	23°C	DIN 53 479	Kg/m ³	2160	2200	2244	2220	2100	3150
Hardness	23°C	ISO 868	Shore D	55±3	65±3	58±3	60±3	67±3	60±3
Ball indentation hardness	23°C	DN 53 456 H135/30	MPa	≥26	≥29	≥26	≥27	≥34	≥39
Tensile Strength	23°C	ASTM D 4745-79	MPa	≥27	≥15	≥16	≥16	≥18	≥22
Elongation at break	23°C	ASTM D 4745-79	%	≥350	≥140	≥185	≥219	≥80	≥216
Compressive Strength	23°C	DIN 53 455	MPa	≥4	-	≥8	≥8	-	≥10
Thermal Conductivity	23°C	DIN 52 612	$\frac{J \times 10^3}{m \times h \times K}$	00.8	4	0.13	1.3	3.5	4
Coefficient of thermal expansion	25°C – 200°C		K-1 x 10 ⁵	19	11.2	11	10.7	10.9	8.5
Coefficient of Friction	*		μ	0.08	0.14	0.13	0.16	0.17	0.13
Minimum Service Temperature			°C	-200	-200	-200	-200	-200	-200
Maximum Service Temperature			°C	260	260	260	260	260	260
Young's Module		DIN 53 457	MPa	540	-	1320	1320	-	1375

• All above stated data results from random tests which were taken from the ongoing production. All data was established on standard test-products according to ISO, DIN & ASTM standards and can basically not be carried over to the completed seal.

MOR PEEK (Polyetheretherketone) Products:

- MOR PEEK can withstand temperature up to 300°C.
- It is remarkable for its outstanding chemical inertness, excellent resistant to X/β/γ rays, non-oxidising acids, concentrated alkaline solution, low coefficient of friction, high mechanical strength & thermal stability.
- Filler materials like carbon fibre, PTFE & graphite are available. With suitable filler agents it has excellent wear and high abrasion.

Availability:

- Sheets, Rods, Bush, Gear, Friction Bearing, Piston Rings, Valve seat/Seat Ring, etc.



**MOR PU (Polyurethane)
Products:**

- MOR PU can withstand temperature from -30°C to 100°C.
- It has excellent impact, abrasion & tear resistance properties. It has very high load bearing capabilities and superb resilience with exceptional elastomeric memory.
- It has good electrical insulating properties
- Any Profile Seal can be machined
- These seals have significant reduction in extrusion & wear.

Availability:

- Machined Seals, Wheels, Casters, Conveyor Rollers, Chute & Hopper, Bumpers, etc.

