

PTFE Glass and Carbon/Graphite Filled

PTFE's mechanical properties can be enhanced by adding fillers such as glass fibers, carbon, graphite, molybdenum disulphide, and bronze. Generally, filled PTFE's maintain their excellent chemical and high temperature characteristics, while fillers improve mechanical strength, stability, and wear resistance.

Applications include wear pads, piston rings and rotating platforms in microwave ovens

Property	ASTM Test Method	Units	PTFE 25% Glass Filled	PTFE 25% Carbon/Graphite
Physical				
Specific Gravity	D-792		2.15 - 2.24	2.03 - 2.10
Hardness Shore D	D-2240		55 - 58	59 - 68
Mechanical				
Tensile Strength	D-638 D-1708	psi	1000 - 2000	1800 - 2100
Elongation	D-638 D-1709	%	50 - 150	110 - 120
Deformation Under Load (73°F, 2000 psi, 24 hrs)	D-621	%	3 - 9	4 - 6
Compressive Strength @ 0.2% Offset @ 1.0% Strain	D-695 D-695	psi psi	1200 – 1600 900 – 1200	1600
Thermal				
Coefficient Of Linear Thermal Expansion (78 °F - 400 °F)	D-696	in/in/°F	3 - 8 x 10 ⁻⁵	0.8 x 10 ⁻⁴
Thermal Conductivity	C-177	BTU/hr/ft ² /°F-in	2.5 - 3.5	5

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.