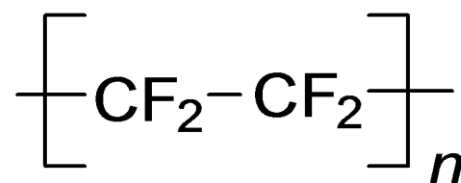


Virgin Polytetrafluoroethylene (PTFE w/ Carbon + Graphite)

SPECIFICATIONS

Property	Spec	Value
Color		Black
Specific Gravity @ 23°C	ASTM D792	2.10 g/cm ³
Hardness @ 23°C	ASTM D2240	60D
Tensile strength at break @23°C	ASTM D4894	18.4 MPa
Elongation at break @ 23°C	ASTM D4894	202%
Service temperature range		-200°C Min +280 °C Max



DESCRIPTION

MT46 is a PTFE material with hardness 60 Shore D specially compounded for low friction, good chemical, wear and extrusion resistance. Polytetrafluoroethylene (PTFE) has exceedingly strong carbon-fluorine bonds (C-F). PTFE has a simple, linear, flexible and regular molecular structure, which makes it highly crystalline. Commercial PTFE is a high molecular weight polymer. Fluorine atoms form a tight sheath of protection providing PTFE with extreme molecular and physical properties. The sheath prevents PTFE from external influences upon the carbon-carbon backbone. It also results in weak interactions/bindings between polymer chains. These molecular structure properties make PTFE extremely resistant to chemicals or solvents even at very high temperatures and high pressures. PTFE also has very low friction and good anti-stick characteristics. PTFE is tough and flexible even at very low temperatures. However the same molecular structure properties result in mediocre mechanical properties with low stiffness and strength among thermoplastics. PTFE articles cannot be formed with conventional processes for thermoplastics because it does not flow above its crystalline melting point. Parts can be formed by a sintering process under high temperatures. Virgin PTFE is approved by the FDA under 21 CFR177.1550 for use as articles or components of articles intended to contact food.