PTFE

PTFE stands for polytetrafluoroethylene. It is a high-performance fluoropolymer known for its exceptional chemical resistance, low friction, and nonstick properties. PTFE has a very low coefficient of friction, making it an excellent choice for applications requiring lubrication or reduced friction, such as bearings, seals, and sliding components.

Chemical Description

Description	Value
Material Type	Semi-Crystalline Thermoplastic Fluoropolymer
Chemical Name	PTFE Polytetrafluoroethylene
Additives	Unfilled
Color	White
UV Resistant	Yes

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in3	0.078
Water Absorption, 24 hrs, Immersion,% by wt.	<0.01
Coefficient of Linear Thermal Expansion, x10-5 in./in./°F	7.5
Heat Deflection Temp,°F at 263psi	132
Melting Point Temp,°F	635
Max Continuous Operating Temp,°F	500
Minimum Operating Temp,°F	-328
Flammability Rating,UL94	V-0
Dielectric Strength,V/mil	285
Dielectric Constant at 1 MHz	2.1
Thermal Conductivity,BTU-in/ft²-hr-°F	1.7

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	3.9
Tensile Modulus,ksi	800
Compressive Strength,ksi	3.5
Compressive Modulus,ksi	70
Flexural Modulus,ksi	72
Elongation at Break	300%
Hardness Shore D	50
Notched Izod Impact Strength,ft-lb/in	3.5

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.