



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

PTFE - Unfilled Semi-Crystalline High-Performance Plastic

PTFE (Polytetrafluoroethylene) is commonly known as Teflon. It is one of the greatest thermoplastics invented in the 20th Century. Its high-temperature resistance (up to 300°C) and corrosion resistance rival and exceed that of the high-performance thermoplastics of the PI family, PEEK, and PES. Its low coefficient of friction and water repellence is unmatched. Mechanical properties, however, are weaker than other high-performance thermoplastics. Reinforcing substrates can improve those deficiencies. PTFE and molded grades (FEP and PFA) are affordable (considering their superior properties). They are used in most electrical and commercial applications where low-friction, long-wear, non-stick, and water resistance are necessary. Teflon, Flourosint, and Rulon are commercial names.

The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers. We offer our customers the proper product for their specific application. A variety of dimensions and diameter sizes are available. Product colors vary according to material type.

ASTM				
PROPERTIES	Test Method	Units	Typical Values	
PHYSICAL	Specific Gravity	ASTM D792	2.13 - 2.20	
THERMAL	Melting Point	ASTM D3418	°F	620
	Minimum Service Temperature		°F	-328
	Max. Continuous Service Temperature in Air		°F	500
	Flammability: UL94	UL 94		V-0
	Flammability: Oxygen Index	ASTM D2863	%	>95
	Coefficient of Linear Thermal Expansion	ASTM D696		-
MECHANICAL	Ultimate Tensile Strength	ASTM D638	PSI -> Mpa Value= 20-35	2,900
	Elongation at Break	ASTM D828	%	280
	Shore Hardness: D Scale	ASTM D2240		50 - 60
	Flexural Strength	ASTM D790	PSI	NB
	Flexural Modulus	ASTM D790	KSI	94
	IZOD Impact Strength: Notched	ASTM D256	ft-lb/in	0.48
	Deformation Under Load	ASTM D695	%	10 - 13
	Permanent Deformation	ASTM D695	%	6 - 7.5
ELECTRICAL	Dielectric Constant at 1 MHz	ASTM D150		2.10
	Dielectric Strength	ASTM D149	kV/mm	20 - 70
	Volume Resistivity	ASTM D257	Ohm-cm	10 ¹⁸

PTFE from The Gund Company does not contain and is not derived from PFOA, PFOS, or any derivatives therein.

The data supplied are typical values. They are not to be considered specification values. All of the information, suggestions, and recommendations about these properties and uses of the products herein are based on tests and data believed to be accurate; however, the final determination regarding the suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty - expressed or implied - including, without limitation, warranties of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.