Teflon Virgin PTFE

STYLE 1140-00

Construction/Description

PTFE (polytetrafluoroethylene)

PTFE (polytetrafluoroethylene) is a high molecular weight polymer and one of the most versatile plastics. It can handle virtually all chemicals in the 0-14 pH range with the exception of molten alkali metals and elemental flourine. It is suitable for service at temperatures from the cryogenic range up to 500°F. It also has excellent antistuck, dielectric, and impact resistance properties.

Application/Service

Virgin PTFE sheet is particulary recommended for applications in the food and beverage industry where high purity metals are required. It is also used where contamination or discoloration of flow media cannot be tolerated.

Product Data

Temperature Limits		pH Range	Color	Available Sheet Sizes	
Minimum	Maximum			Thickness	Sheet Size
-328°F -200°C	500°F 260°C	0-14	White	1/64", 1/32", 1/16", 3/32", 1/8", 3/16", 1/4"	48" x 48" or 60" x 60" sheets 48" or 60" wide continuous rolls

Typical Physical Properties

ASTM Test Method	Properties	Values
D638-61T	Tensile Strength at 73°F	1500-3500 PSI
D638-61T	Elongation	250-350%
D1700-61	Hardness Durometer	D50-60
D621-59	**Deformation** 73°F — 1500 PSI — 24hr 100°F — 1500 PSI — 24hr 200°F — 1500 PSI — 24hr	- 4-8% 10-18% 20-25%
D256-56	**Impact Strength, Izod** 73°F Average 170°F Average	- 3.0 ft.lb/in. 6.0 ft.lb/in.
D570-59aT	Water Absorption Static Coefficient of Friction at 73°F	.001% .04%
D150-59T	Dielectric constant (1000 cps)	2
D257-61	Dielectric Strength in Air	1000 volts/mil.
D696-44	Coefficient of Thermal Expansion at 73°F	5.5x10^-5 in/in/°F
D177-45	Coefficient of Thermal Conductivity	1.7
D792-60T	Specific Gravity	2.14-2.20