

# **Virgin PTFE Teflon**





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### **Virgin PTFE Teflon**

Polytrafluoroethylene (PTFE) is a high performance polymer which is almost chemically inert, only being attacked under extreme conditions by molten alkali metals and certain fluorine compounds.

PTFE materials are suitable for a wide range of temperatures from cryogenic to 260 °C and have excellent insulating capabilities and high dielectric properties. In this respect PTFE is a very successful gasket material.

#### **General Properties**

- Outstanding chemical resistance
- Suitable for use with foodstuffs and pharmaceutical applications
- Insoluble in solvents, even at increased temperature
- Stable to light
- Does not absorb water
- Excellent electrical insulating capacity
- Low thermal conductivity

#### **Typical Applications**

- Aggressive or toxic fluids
- Pharmaceutical industry
- Food industry
- Chemical industry

#### **Typical Products**

- Gaskets & Seals
- O-Rings
- Valve seats
- Bearings Pads

#### Standard Thickness, Roll Size and Finish

Standard Thickness	1.5mm, 2mm, 3mm, 4mm, 5mm, 6mm	
Standard Roll Size	1200 x 1200mm	
Standard Finish	Both Sides Smooth (SS)	

<sup>\*</sup> Note: Manufacturing tolerance of  $\pm$  10% on thickness,  $\pm$  5% on length &  $\pm$  2% on width shall be applicable

Cut lengths, strips, custom shapes, surface finish and colours are available upon request



## **Virgin PTFE Teflon**

**Technical Data** - Typical values for a thickness of 2.0 mm

	Test Method	Unit	Specified Value
Specific gravity	ASTM D792	-	2,14 - 2,20
Tensile strength	ASTM D1457	MPa	20 - 35
Elongation at break	ASTM D1457	%	210 - 400
Working temperature range	-	°C	-200 - +260
Flexural strength 0,7 N/mm2	ASTM D790	MPa	no break
Hardness	ASTM D2240	(shoreD)	50 - 60
Compressive strength 1% deformation	ASTM D695	MPa	4,00 - 4,50
Friction coefficient - static	ASTM D3028 (2)	-	0,09
Friction coefficient - dynamic	ASTM D3028 (2)	-	0,05
PTFE - steel oil lubricated	-	-	0,02 - 0,06
Coefficient of thermal expansion	ASTM E831	1O-5* C-1	16
from 25 to 100°C			
Thermal conductivity	ASTM D2214	W/mK	0,20
Dielectric strength	ASTM D149	kV/mm	55
(short-time air thickness 0,5 mm)			
Dielectric constant	ASTM D150	-	2,10
Volume resistivity	ASTM D257	Ohm/cm	10-17
Surface resistivity	ASTM D257	Ohm	10-15
Arc-resistance	ASTM D495	sec	OK (4)
Water absorption	ASTM D570	%	<0,01

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