

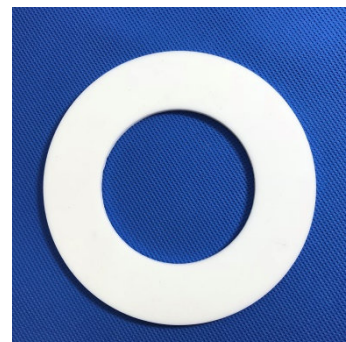
# Technical Data Sheet

## Virgin PTFE (WCM400)

**DESCRIPTION:** Polytetrafluoroethylene

### PHYSICAL PROPERTIES

SPECIFIC GRAVITY:	2.14 - 2.18 g/cm <sup>3</sup>
COEFFICIENT OF LINEAR THERMAL EXPANSION 25-100 °C:	12-13 (10 <sup>-5</sup> (mm/mm)/°C)
HARDNESS SHORE D	≥ 51
TENSILE STRENGTH:	≥ 24 N/mm <sup>2</sup>
ELONGATION AT BREAK:	≥ 250 %
COMPRESSIVE STRENGTH AT 1% DEFORMATION:	4-5 N/mm <sup>2</sup>
DEFORMATION UNDER LOAD: (24 h 13.7 N/mm <sup>2</sup> 23 °C):	≤ 17 %
PERMANENT DEFORMATION: (AS ABOVE, AFTER 24-H RELAXATION)	≤ 9 %
KINETIC COEFFICIENT OF FRICTION:	0.06
WEAR FACTOR @ PV100:	2.9 $\frac{\text{cm}^3 \cdot \text{min} \cdot 10^{-8}}{\text{Kg} \cdot \text{m} \cdot \text{h}}$



PTFE

The base characteristics of PTFE are the ones offering a unique combination of:

- Low coefficient of friction
- Excellent chemical inertness
- Non-adhesive surface
- Wide temperature range withstanding (-200° C to +260° C)
- Excellent dielectric properties

The compressive strength at a certain predetermined compression value is one of the most significant mechanical characteristics of PTFE, in a wide range of service temperatures.

Flexibility strength, plastic memory and hardness, are additional characteristics of PTFE products.

PTFE is practically inert to all chemical products, except for some alkaline metals, for example, Chlorine trifluoride and for basic fluorine at high temperatures and pressures.

PTFE is considered one of the most stable materials from the thermal point of view. Up to a service temperature of 260° C PTFE does not change its own physical and molecular properties.

We also offer etched PTFE where bonding is required.

Care should be taken in selecting the most suitable quality for each application. Advice is available, but final responsibility remains with the customer.

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