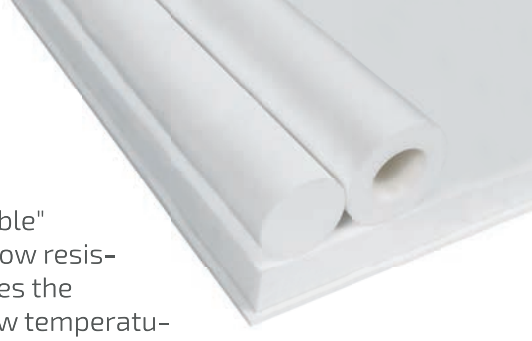
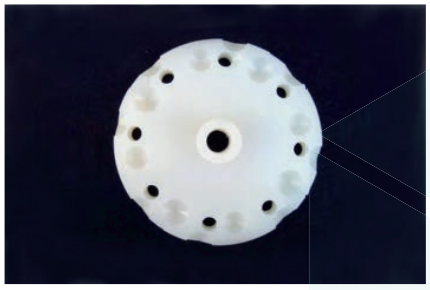
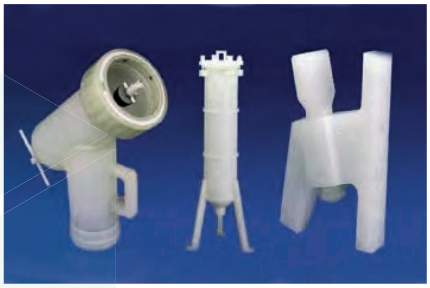
GENERAL USE PLASTICS

# PTFE



PTFE stands out for its flame resistance: it is classified as a "non-combustible" material in the air according to ASTM D365 test method. This material has low resistance to gamma radiation: for example, an exposure to 70 Megarads reduces the tensile strength by 50%. It has good mechanical properties, even at very low temperatures and excellent fatigue resistance, especially in applications involving bending or vibration.





## MAIN CHARACTERISTICS

- Wide range of temperatures -200°C to +260°C
- Almost total resistance to all chemicals
- Very low coefficient of friction
- Non-flammable
- Excellent dielectric properties
- Good mechanical properties
- Excellent resistance to fatigue
- Total resistance to ageing, moisture and ultraviolet rays
- Non-toxic

## APPLICATIONS

- Permeability
- Friction
- Electrical insulation
- Anti-corrosion
- General mechanics


CHEMICAL RESISTANCE


ELECTRICAL INSULATION


WEAR RESISTANCE


SLIDING PROPERTIES


IMPACT RESISTANCE


TEMPERATURE RANGE

GENERAL USE PLASTICS

# TECHNICAL DATASHEET

| PROPERTIES | UNITS | VIRGIN PTFE |
|---|---|---|
| DENSITY | $g/cm^3$ | 2.13-2.19 |
| **THERMAL PROPERTIES** | | |
| THERMCAL CONDUCTIVITY | cal/s/cm/°C | $5 - 11 \times 10^{-4}$ |
| COEFF. OF LINEAR THERMAL EXPANSION (23°C - 260°C) | °C | $10-15 \times 10^{-5}$ |
| **MECHANICAL PROPERTIES** | | |
| TENSILE STRENGTH | MPa | 25 - 30 |
| RUPTURE DEFORMATION | % | 250 - 400 |
| SHORE HARDNESS | SHORE D | 55 - 60 |
| DYNAMIC FRICTION COEFFICIENT | - | 0.06 - 0.15 |
| FLUENCY | % | - |
| PRESSURE/VELOCITY FACTOR - P.V. (3.5m/min) | $kg/cm^2 \times m/s$ | - |
| **ELECTRICAL PROPERTIES** | | |
| VOLUME RESISTIVITY | Ohm x cm | $>10^{18}$ |
| SURFACE RESISTIVITY | Ohm | $>10^{17}$ |