

PRODUCT

VIRGIN PTFE

(polytetrafluoroethylene)

| Property | Method | Units | Specification |
|--|-------------|--------------------|------------------|
| Specific gravity | ISO 13000-2 | g/cm ³ | 2,130 – 2,180 |
| Tensile strength | ISO 13000-2 | MPa | ≥ 20 |
| Elongation | ISO 13000-2 | % | ≥ 200 |
| Hardness | ISO 13000-2 | Shore D | ≥ 54 |
| Ball Hardness | ISO 13000-2 | MPa | ≥ 23 |
| Compression strength at 1% deformation | | Kg/cm ² | ≥ 70 |
| Deformation under load (140 Kg/cm ² for 24 hrs. At 23°C) | ASTM D621 | % | 10 – 13 |
| Permanent deformation (after 24 hrs. Relaxation at 23°C) | ASTM D621 | % | 6 – 7,5 |
| Coefficient of static friction | ASTM D1894 | | 0,08 – 0,10 |
| Coefficient of dynamic friction | ASTM D1894 | | 0,06 – 0,08 |
| Thermal conductivity | ASTM C 177 | W / m · K | 0,24 |
| Dielectric constant (ε) at 60 Hz to 2GHz | ASTM D150 | / | 2,1 |
| Dielectric Strength | ASTM D149 | KV/mm | 20 – 70 |
| Volume resistivity | ASTM D257 | Ohm · cm | 10 ¹⁸ |
| Flamability | UL 94 | | VE-0 |
| Water absorption | ASTM D570 | % | 0,01 |

Service Temperature

- Excellent resistance to continuous service temperatures up to 260° C and, for limited periods, even to higher temperatures; the low temperature resistance of the product allows satisfactory performance at as low as -200°C.

Chemical resistance

- PTFE possesses a high inertness towards nearly all known chemicals. It is only attacked by elemental alkali metals, chlorine trifluoride and elemental fluorine at high temperature and pressures.

Solvents resistance:

- PTFE is insoluble in all solvents up to temperatures as high as 300°C (572°F). Certain highly fluorinated oils only swell and dissolve PTFE at temperatures close to their crystalline melting point.

FDA Approved

- (Code of Federal regulation 21 CFR Ch.1, revised as of April 1, 1999 Edition); sections 175.105 - 175.300 - 176.170 - 176.180 - 177.1520 - 177.1550 - 177.2600 - 178.3570 . "Perfluorocarbon Resins" of the Food and Drug Administration/USA.P.