



VIRGIN PTFE DATASHEET

| Properties | Method | Unit | Typical Values (from-to) |
|--|----------------|------------------|--------------------------|
| Specific gravity | ASTM D792 | - | 2,14 - 2,20 |
| Tensile strength | ASTM D1457 | N/mm2 | 20 - 35 |
| Elongation at break | ASTM D1457 | % | 210 - 400 |
| Compressive strength 1% deformation | ASTM D695 | N/mm2 | 4,00 - 4,50 |
| Deformation under load 14 N/mm2 for 24hrs | ASTM D621(1) | % | 10 - 15 |
| Flexural strength 0,7 N/mm2 | ASTM D790 | N/mm2 | no break |
| Impact strength (Izod) 57°C | ASTM D256 | J/cm | 1,10 |
| Impact strength (Izod) 23°C | ASTM D256 | J/cm | 1,60 |
| Impact strength (Izod) 77°C | ASTM D256 | J/cm | 3,30 |
| Hardness | ASTM D2240 | (shoreD) | 50 - 60 |
| Friction coefficient - static | ASTM D3028 (2) | - | 0,09 |
| Friction coefficient - dynamic | ASTM D3028 (2) | - | 0,05 |
| PTFE - steel oil lubricated | - | - | 0,02 - 0,06 |
| Working temperature range | - | °C | -200 - +260 |
| Increase in volume from room temperature to molten state (340°C) | - | % | 27 - 28 |
| Coefficient of thermal expansion from 25 to 100°C | ASTM E831 | °C ⁻¹ | 16 x 1 ⁻⁵ |
| Thermal conductivity | ASTM D2214 | W/mK | 0,20 |
| Specific heat 0°C | - | KJ/kg.K | 0,96 |
| Specific heat 50°C | - | KJ/kg.K | 1,05 |
| Temperature of distortion 0,46 N/mm2 | ASTM D648 | °C | 130 - 140 |
| Temperature of distortion 1,85 N/mm2 | ASTM D648 | °C | 50 - 60 |
| Dielectric strength (short-time air thickness 0,5 mm) | ASTM D149 | kV/mm | 55 |
| Dielectric constant | ASTM D150 | - | 2,10 |
| Dissipation factor | ASTM D150 | - | <0,0002 |
| 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 |
| Flammability ATB | ASTM D635 | sec | <5,00 |
| Flammability AEB | ASTM D635 | mm | <5,00 |

Note:

All the values refer to the temperature of 23°C unless otherwise specified

- (1) Superseded standard
- (2) Speed 5 m/min; load 1kg/cm², sliding surface steel roughness Ra = 0,4 " 0,6 micron
- (3) 100% relative humidity
- (4) Without defects



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