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Material Specification Sheet

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Virgin PTFE

General Information

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.

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

Property	Method	Units	Specification
Specific Gravity	ISO 1183	g/cc	2.13-2.18
Tensile Strength	ISO 527	MPa	25-35
Elongation	ISO 527	%	250-350
Hardness	ISO 868	Shore D	54-60
Flexural Modules	23°C	N/mm ²	600-700
Deformation under load (140kg/cm ² for 24hrs at 23°C)	ASTM D695	%	10 – 13
Deformation under load (140kg/cm ² for 24hrs at 150°C)	ASTM D695	%	13 – 15
Permanent deformation (After 24hrs. Relaxation at 23°C)	ASTM D695	%	6 – 7.5
Thermal Conductivity	ASTM C 177	W./m.k	0.24
Volume Resistivity	ASTM D257	Ohm cm	>10 ¹⁰
Dielectric Constant (60Hz-2Ghz)	ASTM D150	/	2.1
Friction Coefficient	ASTM D1894	/	0.07 (Dynamic)
Water Absorption	ASTM D570	%	0.01
Service Temperature		°C	-200 / +260
Excellent resistance to continuous service temperature up to 260°C and for limited periods, even to higher temperatures. Low temperature resistance of the product allows satisfactory performance at -200°C			
Flammability	UL94		V-0
Melting Point		°C	325 - 335

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

In accordance with ISO 13000-1

The information given above is based upon average values and is no way intended as a warranty. The purchaser is deemed responsible for determining the suitability of the product for any application. All data relating to suitable uses and description information concerning our products are compiled from research and are believed to be reliable but are provided for guidance purposes only. The Company holds no legal or contractual responsibility for information supplied

