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Material Specification Sheet

RHN 30D

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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/mm²	600-700
Deformation under load (140kg/cm² for 24hrs at 23°C)	ASTM D695	%	10 – 13
Deformation under load (140kg\cm² 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	Ohn 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