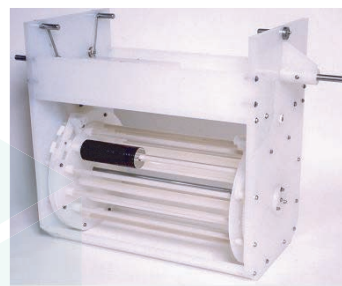




PVDF 1000

Semi-crystalline plastic, PVDF 1000 is an unreinforced crystalline fluoropolymer, which combines good mechanical, thermal and electrical properties with excellent chemical resistance. It also shows good resistance to high energy radiations. In addition, the composition of the raw material used for the manufacturing of PVDF complies with EU/FDA regulations for food-compatible plastic materials. All these properties make this product a very versatile engineering material and with numerous applications in diverse types of industry.

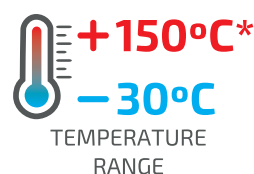
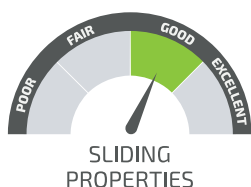
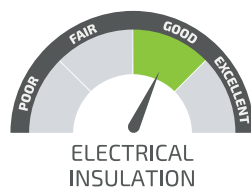
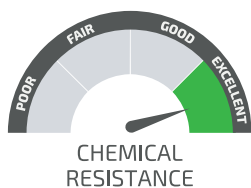


MAIN CHARACTERISTICS

- High maximum service air temperature (150°C in continuous service)
- High mechanical resistance, creep and stiffness (higher than other fluoropolymers)
- High chemical resistance and hydrolysis resistance
- Good resistance to wear, sliding and contraction
- Very good dimensional stability
- Good dielectric properties and good electrical insulation
- Excellent resistance to UV rays and environment
- Intrinsic flame resistance, much higher than that of the remaining fluoropolymers.

APPLICATIONS

- Electrical/electronic insulation (including many components of semiconductor processes)
- Structural components requiring high resistance and stiffness at high temperatures



*continuously (20.000H)



PROPERTIES	TEST METHODS	UNITS	PVDF
COLOR	-	-	NATURAL
DENSITY	ISO 1183	g/cm ³	1.78
WATER ABSORPTION	ISO 62	%	0.04
MOISTURE ABSORPTION	ISO 62	%	0.01
THERMAL PROPERTIES			
GLASS TRANSITION TEMPERATURE VST/B/50	ISO 306	°C	138
GLASS TRANSITION TEMPERATURE VST/A/50	ISO 306	°C	160
DEFORMATION TEMPERATURE HDT/B	ISO 75	°C	145
DEFORMATION TEMPERATURE HDT/A	ISO 75	°C	104
COEFFICIENT OF LINEAR THERMAL EXPANSION	ISO 11359	K ⁻¹ *10 ⁻⁴	1.3
THERMAL CONDUCTIVITY AT 20°C	ISO 22007-4	W/(m*K)	0.13
GLASS TRANSITION TEMPERATURE	ISO 3146	°C	-40
MELTING TEMPERATURE	ISO 3146	°C	171
FLAMMABILITY ⁶			
"OXYGEN INDEX"	ASTM D2863	%	44
ACCORDING TO UL94 (1.5/3MM DE ESPESSURA)	-	-	V-0
MECHANICAL PROPERTIES			
TENSILE STRESS AT YIELD	ISO 527	MPa	58
ELONGATION AT YIELD	ISO 527	%	17
TENSILE STRESS AT BREAK	ISO 527	MPa	46
ALONGAMENTO NA RUTURA	ISO 527	%	29
ROCKWELL HARDNESS	ISO 2039	MPa	120
SHORE HARDNESS	ISO 868		80
TENSION TEST	ISO 178	MPa	80
MODULUS OF ELASTICITY	ISO 527	MPa	2125
ELECTRICAL PROPERTIES			
VOLUME RESISTIVITY	IEC 60093	Ω*cm	≥ 10 ¹⁰
SURFACE RESISTIVITY	IEC 60093	Ω	≥ 10 ¹³
CONSTANT DIELECTRIC AT 1MHz (εr)	IEC 60250	-	7
DIELECTRIC DISSIPATION FACTOR (tanδ)	IEC 60250	-	0.24
DIELECTRIC STRENGTH	IEC 60243-1	kV/mm	27
RESISTANCE TO SURFACE DISCHARGE	IEC 60112	V	CTI 600

POLYMER