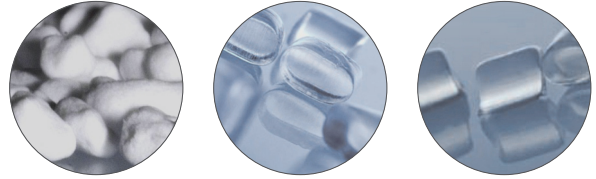


PTFE, PFA, FEP: RAW MATERIALS CHARACTERISTICS

GENERAL SPECIFICATIONS:

The table below lists the mechanical, electrical, and thermal properties of natural fluoropolymers.



PROPERTY	UM	ASTM	PTFE Polytetrafluoroethylene	PFA Perfluoroalkoxy	FEP Fluorinated Ethylene-propylene
MECHANICAL					
Specific Gravity	gr/cm ³	D792	2.14 - 2.20	2.14 - 2.17	2.14 - 2.17
Tensile Strength	Kgf/cm ²	D1708 - D638	180 - 280	280	250
Tensile Modulus	Kg/cm ²	D638	5.600	2.800	3.500
Elongation	%	D1708 - D638	250 - 400	300	300
Coefficient of Friction	Dynamic (<3m/min)	-	0.1	0.2	0.2
Hardness	Shore D	D2240	D - 55 - 65	D - 60 - 65	D - 55 - 60
Compressive Strength	Kg/cm ²	D695	250	150	150
Impact Strength	Nm	D256	4.07	No break	No break
Flexural Modulus	Kg/cm ²	D790	1900	6700	6700
Flexural Strength	Kg/cm ²	D790	No break	No break	No break
Water Absorption	%	D570	<0.01	<0.03	<0.01
Flex Life (MIT cycles)	-	D2176	>1.000.000	10.000 - 500.000	5.000 - 80.000
ELECTRICAL					
Dielectric Constant	-	D150	2.1	2.1	2.1
Dielectric Strength	-	D149	>55	>75	>75
Volume Resistivity	Ohm/cm	D257	>10 ¹⁸	>10 ¹⁸	>10 ¹⁸
Surface Resistivity	Ohm/cm	D257	>10 ¹⁷	>10 ¹⁷	>10 ¹⁷
THERMAL					
Melting Point	°C	-	327	310	275
	°F	-	620	590	525
Upper Working Temperature	°C	-	260	260	205
	°F	-	500	500	400
Lower Working Temperature	°C	-	- 70	- 70	- 60
	°F	-	- 95	- 95	- 75
Flammability	-	UL94	V - 0	V - 0	V - 0

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