

Seflon® Properties of Fluoropolymers PTFE

	PROPERTIES	UNIT	ASTM TEST METHOD	PTFE	
PHYSICAL	Melting Point	°C	-	327	
	Specific Gravity	-	D792	2.14-2.20	
MECHANICAL	Tensile Strength	Mpa {kgf/cm ² }	D638	13.7-34.3 {140-350}	
	Elongation	%	D638	200-400	
	Compressive Strength	Mpa {kgf/cm ² }	D695	11.8 {120}	
	Impact Strength (Aizot)	J/m {kgf•cm/cm}	D526A	160 {16.3}	
	Hardness (Rockwell)	-	D785	-	
	Hardness (Shore)	-	D2240	D50-55	
	Bending elasticity	GPa {10 ³ kgf/cm ² }	D790	0.55 {5.6}	
	Tensile Strength	GPa {10 ³ kgf/cm ² }	D638	0.40-0.55 {4.1-5.6}	
	Coefficient of Dynamic friction	-	0.69MPa {7kgf/cm ³ } 3m/min	0.10	
	THERMAL	Thermal conductivity	W/(m•K) {Kcal/(m•hr•°C)}	C177	0.25 {0.22}
Specific Heat		J/(°C•g) {cal/(°C•g)}	-	1.05 {0.25}	
Coefficient of Linear expansion		10 ⁻⁵ /°C	D696	10	
Ball Pressure		°C	-	180	
Max. Service Temperature		°C	Unloaded	260	
Temperature thermal deformation ratio					
1.81 Mpa{18.5kgf/cm ² }		°C	-	121	
0.45Mpa{4.6kgf/cm ² }		°C	-	121	
ELECTRICAL	Volumetric resistance ratio	•cm	D257 (50%.RH.235)	>10 ¹⁸	
	Dielectric breakdown strength (Short term)	MV/m kV/mm(3.2mm thickness)	D149	19	
	Dielectric constant				
	60Hz	pF/m	D150	<18.6 {<2.1}	
	10 ³ Hz	pF/m	D150	<18.6 {<2.1}	
	10 ⁶ Hz	pF/m	D150	<18.6 {<2.1}	
	Anti arcing property	sec	D495	>300	
	Dielectric dissipation factor				
	60Hz	-	D150	<0.0002	
	10 ³ Hz	-	D150	<0.0002	
10 ⁶ Hz	-	D150	<0.0002		
DURABILITY	Water absorption (24h)	%	D570	0.00	
	3.2mm thickness combustibility	-	(UL/94)	V-0	
	Oxygen index	-	D2863	>95	
	Effect of direct sunlight	-	-	No	
	Effect of weak acid	-	D543	No	
	Effect of strong acid	-	D543	No	
	Effect of weak alkali	-	D543	No	
	Effect of strong alkali	-	D543	No	
Effect of solvent alkali	-	-	No		