

CHEMFILM® FEP Fluoropolymer Film — Typical Physical Properties*

Property	ASTM Method	Metric Value	Metric Units	English Value	English Units
General					
Specific Gravity	D-792	2.12-2.17		2.12-2.17	
Yield (1 mil film)		18	m ² /kg	90	ft ² /lb
Flammability	UL-94	V-0		V-0	
Water Absorption		<0.01	%	<0.01	%
Mechanical					
Tensile Strength @ Break	D-882	24	MPa	3500	psi
Elongation @ Break	D-882	300	%	300	%
Tensile Modulus	D-882	480	MPa	70000	psi
Initial Tear Strength, 1 mil	D-1004	2.2-2.7	N	0.5-0.6	lb _f
Initial Tear Strength, 2 mil	D-1004	4.9-5.3	N	1.1-1.2	lb _f
Propagating Tear Strength, 1 mil	D-1922	1.4-1.5	N	0.32-0.33	lb _f
Propagating Tear Strength, 2 mil	D-1922	2.4-2.7	N	0.55-0.60	lb _f
Fold Endurance (M.I.T.)	D-2176	10000	cycles	10000	cycles
Electrical					
Dielectric Strength, 1 mil	D-149	240	kV/mm	6000	V/mil
Dielectric Constant, 1 kHz	D-150	2.1		2.1	
Dissipation Factor, 1 kHz	D-150	0.0003		0.0003	
Thermal					
Melt Point	D-3418	252-282	°C	485-540	°F
Maximum Continuous Service Temperature		205	°C	400	°F
Specific Heat		1172	J/(kg•°K)	0.28	Btu/(lb•°F)
Coefficient of Thermal Conductivity		0.195	W/(m•°K)	1.35	Btu•in/(hr•ft ² •°F)
Coefficient of Linear Thermal Expansion	D-696	9.9 x 10 ⁻⁵	mm/(mm•°C)	5.5 x 10 ⁻⁵	in/(in•°F)
Limiting Oxygen Index	D-2863	95	%	95	%
Optical					
Refractive Index	D-542	1.341-1.347		1.341-1.347	
Solar Transmission	E-424	96	%	96	%

*Represent typical performance properties and should not be used for specification purposes. Contact your Saint-Gobain Performance Plastics representative for appropriate values.



Saint-Gobain Performance Plastics
Films—The Americas
150 Dey Road
Wayne, NJ 07470-4699
Phone: (800) 526-7844
Fax: (973) 696-4056

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