

FEP Film

FEP fluoropolymer melt extruded film

FEP film is produced from FEP resin by a melt extrusion casting process. FEP film offers various benefits of fluorinated film, such as high temperature and chemical resistance, non-stick properties, and superior dielectric performance. FEP film can be heat-sealed, heat-formed, laminated to various substrates, and serves as high temperature adhesive.

FEP Film Characteristics

- Continuous service temperature range from -240°C to 205°C
- Maximum service temperature up to 260°C
- Superior non-stick properties and low coefficient of surface friction
- Chemically inert and solvent resistant to most chemicals
- Outstanding dielectric properties over a wide range of frequencies and temperatures
- Excellent light transmission and high clarity
- Free of plasticizers, processing aids, or additives
- Acceptable for food contact

FEP Film Specifications

- Thickness range from 12µm to 250µm
- Width up to 1550mm

Any syncopated widths available upon request

- Adhesive surface: plasma treated or chemically etched

FEP Film Applications

- Photovoltaic / Solar
- Chemical Industry
- Heat-sealing packaging
- Semiconductor
- Composites release film
- Medical / Pharmaceutical
- Hot-welding, heat melt adhesive
- Electrical/Electronics
- Semiconductor
- Food
- Communication
- Protection
- Decoration

FEP Film Grades

FEP HP (High Performance Grade)

- Manufactured from 100% high-purity grade FEP resin
- High dielectric performance such as PCB/FPCB laminates and wire & cable applications
- Applied in high-end optical applications such as protection, decoration, etc

FEP WG (Welding Grade)

- Perfect material for heat-sealing, welding,
- Suitable for other melt adhesive applications without high aesthetics requirements

FEP MR (Mold Release Grade)

- Due to its superior non-stick properties and up to 205°C service temperature, FEP film is the great choice in high temperature composite molding.
- High elongation and excellent fit softness to complex contoured molds
- Standard colors include red and clear
- Custom colors available upon request
- Available in a variety of perforated patterns

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Basic Properties	Unit	Test Method	FEP HP	FEP WG	FEP MR
Specific Gravity		ASTM D972	2.15		
Flammability		UL-94	V-0		
Water Absorption	%		<0.01		
Tensile Strength	MPa	ASTM D882	24		
Elongation At Break	%	ASTM D882	300	250	
Tensile Modulus	MPa	ASTM D882	480		
Initial Tear Strength(2mil)	N	ASTM D1104	4.9-5.3		
Propagation Tear Strength	N	ASTM D1922	2.4-2.7		
Continuous Use Temp	°C	UL-746-B	205		
Melt Point	°C	ASTM D3418	260		
Dielectric Strength(25µm)	Volts/25 µm	ASTM D149	6500	N/A	N/A
Width	mm		1550		
Thickness	µm		12.5-250		
Standard Colors			Clear	Clear	Clear,Red
Available Surface Treatment			Chemical Etching / Plasma Treatment		

Represent typical performance properties and should not be used for specification purposes.

Contact PLUSXTECH film sales representative for appropriate values.