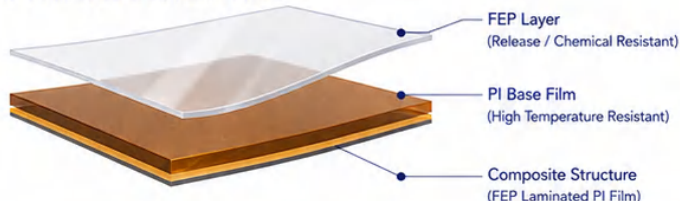




FEP COMPOSITE LAMINATED PI FILM ENGINEERING SPECIFICATIONS

FEP Composite Laminated PI Film is a high-performance composite material consisting of a transparent FEP layer laminated onto an amber polyimide (PI) base film. It combines the excellent release properties and chemical resistance of FEP with the outstanding thermal stability and mechanical strength of PI.

1. COMPOSITE LAYER STRUCTURE



2. MATERIAL SPECIFICATIONS

PROPERTY	UNIT	FEP LAYER	PI BASE FILM	TEST METHOD
Material	—	FEP	Polyimide (PI)	—
Color	—	Transparent	Amber	Visual
Thickness Tolerance	μm	±10%	±10%	ASTM D374
Density	g/cm ³	2.15~2.17	1.42	ASTM D792
Tensile Strength	MPa	≥ 25	≥ 231	ASTM D882
Elongation at Break	%	≥ 300	≥ 50	ASTM D882
Dielectric Strength	kV/mm	≥ 60	≥ 188	ASTM D149
Volume Resistivity	Ω·cm	≥ 1.0 × 10 ¹⁸	≥ 1.0 × 10 ¹⁶	ASTM D257
Continuous Use Temp.	°C	-200 ~ +200	-269 ~ +260	—
Melting Point	°C	260	—	DSC
Flammability	—	V-0	V-0	UL94
Chemical Resistance	—	Excellent	Excellent	—
Surface Energy (FEP side)	mN/m	18~20	—	ASTM D2578
Adhesion Strength	N/25mm	≥ 2.0	—	ASTM D3359

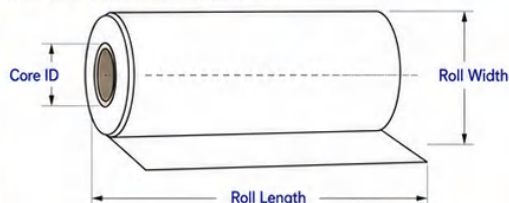
3. THICKNESS OPTIONS

FEP THICKNESS (μm)	PI THICKNESS (μm)	TOTAL THICKNESS (μm)
12.5	12.5	25
12.5	25	37.5
12.5	50	62.5
25	12.5	37.5
25	25	50
25	50	75
50	25	75
50	50	100
Custom	Custom	Custom

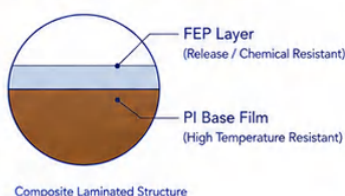
4. ROLL SPECIFICATIONS

ROLL WIDTH		ROLL LENGTH	
Width (mm)	Width (inch)	Length (m)	Length (ft)
500	19.69	33	108
520	20.47	50	164
1000	39.37	100	328
1020	40.16	200	656
Custom	Custom	Custom	Available

5. DIMENSIONAL DIAGRAM (Roll Form)



6. CROSS-SECTION STRUCTURE



7. STORAGE CONDITIONS



Temperature
15 ~ 25°C



Relative Humidity
35 ~ 65% RH

8. FEATURES

- Excellent release performance and non-stick properties
- High temperature resistance and dimensional stability
- Outstanding chemical resistance and insulation performance
- Low surface energy, easy to clean and process
- Ideal for high-end electronic, aerospace and industrial applications

NOTE:

The above values are typical data and not intended for specification purposes. Custom thickness, width, length and core size are available upon request.

