

ETFE High Performance Extrude Film

ETFE films are produced from ethylene and tetrafluoroethylene co-polymer resin by melt extrusion casting process. ETFE films can be heat-sealed, thermoformed, and laminated to various substrates. These materials are ideally suited for architectural, solar, and mold release applications.

ETFE Film Characteristics

- Excellent non-stick / release properties
- Broad continuous use temperature range
from -200°C to 165°C
- Short term exposure of up to 260°C
- High elongation and tear resistance
- Superior weatherability in outdoor exposure
- Excellent light transmission (>90%) and clarity, high transmittance of ultraviolet and all but far infrared wavelengths
- High dielectric strength
- Free of plasticizers, processing aids or additives
- Low permeability to liquids, gases, moisture and organic vapors

ETFE Film Specifications

- Thickness range from 12µm to 500µm
- Width up to 1600mm
- Any slit widths available upon request
- Adhesive surface: plasma treatment and chemical etching treatment

ETFE Film Applications

- Composite Molding Process Materials
- Chemical Industry
- Medical / Pharmaceutical Industry
- Electrical / Electronics
- Photovoltaic / Solar
- Architectural and Greenhouses

ETFE Film Grades

ETFE HP(Premium Grade)

- Manufactured from 100% virgin premium grade ETFE resin
- ETFE HP is the grade of choice for applications requiring visual perfection
- ETFE' s unique combination of high light transmission, clarity, and durability make it an invaluable material for applications such as architectural roofing, front glazing of solar panels, decorative, anti-graffiti and greenhouses
- Can be made into clear, one-side matte and double-side matte

ETFE MR(Mold Release Grade)

- ETFE MR is the material of choice for a release film in high temperature composite molding due to its superior non-stick properties and high upper use temperature in static applications
- Offers 20% higher area yield than FEP
- High elongation and excellent conformability to complex, contoured molds
- Standard colors include red and light blue, custom colors available upon request
- Available in a variety of perforated patterns

ETFE AG(Architectural Grade)

- Excellent UV aging resistance, chemical inertness and non-stick properties
- Excellent mechanical properties are widely applied in agriculture and construction industries

ETFE High Performance Extrude Film

			ETFE HP	ETFE AG	ETFE MR
General Properties	Unit	Test Method			
Specific Gravity		ASTM D792	1.74		
Flammability		UL-94	V-0		
Water Absorption	%		<0.03		
Mechanical Properties					
Tensile Strength	Mpa	ASTM D882	7000		
Elongation at Break	%	ASTM D882	300		
Tensile Modulus	psi	ASTM D882	140,000		
Initial Tear Strength (2 mil film)	g	ASTM D1004	500		
Propagation Tear Strength (2 mil film)	g	ASTM D1922	75		
Thermal Properties					
Continuous Use Temp	°C	UL-746 B	165		
Melt Point	°C	ASTM D3418	260		
Optical Properties					
Solar Transmission	%	ASTM E424	>90		n/a
Product Offering					
Thickness	mm		25mm-1600mm		
Width	µm			12.7µm - 500µm	
Standard Colors			Clear, Matte	Clear, white, blue 、 red、 printed	clear, red、 Blue
Surface Treatments Available					
Chemical Etching			YES		
Plasma Treatment			YES		