

# FlexFlon™ ETFE

## ETFE Fluorine plastic melt extruded film

FlexFlon™ ETFE film, as a new type of light-weight, multifunctional and high-performance material, is highly regarded for its excellent thermal properties, transparency, weather resistance, chemical corrosion resistance and high temperature resistance. It is usually used in the fields of architecture, home decoration, agriculture and green planting to meet various professional needs such as transparent roofs, awnings, greenhouses and heat insulation.

### ETFE Film Characteristics

- Continuous service temperature range from -80°C to 165°C
- Intermittent temperature up to 230°C
- Recyclable material
- Excellent UV insulation
- High dirt resistance and self-clean
- Chemical corrosion resistance
- Excellent fire retardant, up to B1, DIN4102 fire standards
- Strong adhesion, close to the linear expansion coefficient of carbon steel, ideal composite material with metal
- Excellent optical transmittance and transparency (natural light transmission > 92%)
- A long service life, the ideal material for permanent multi-storey movable roof structures

### ETFE Film Classification

#### ETFE AG Series (Architectural Grade)

- Excellent UV and aging resistance, chemical inertness and non-stickiness properties
- Excellent mechanical properties widely used in agriculture and construction industry

### ETFE Film Applications & Markets

- Building roofs and walls
- Architecture and Greenhouses
- Home decoration
- Protection
- Interiors
- Environmental engineering

### ETFE Film Specification

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



Reliable Fluoroplastics X Innovative Future

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			ETFE AG
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	48
Elongation At Break	%	ASTM D882	300
Tensile Modulus	MPa	ASTM D882	965
Initial Tear Strength (50µm)	N	ASTM D1004	4.2
Extension Tear Strength (50µm)	N	ASTM D1922	2.9
Thermal Properties			
Continuous Use Temp	°C	UL-746 B	165
Melt Point	°C	ASTM D3418	260
Optical Properties			
Solar Transmission	%	ASTM E424	>90
Product Size			
Width	mm		25-1600
Thickness	µm		12.7 - 500
Standard Colors			Clear, Matte, White, Blue, Red, Printed, IR cut
Available Surface Treatments			
Chemical Etching			Chemical Etching
Plasma Treatment			Plasma Treatment