

ETHYLENE TETRAFLUOROETHYLENE FILM FOR USE IN ARCHITECTURAL APPLICATIONS

TCI's Reveal™ ETFE films are produced from ethylene and tetrafluoroethylene copolymer resin by melt extrusion casting process. Reveal™ ETFE films can be heat-sealed, thermoformed, and laminated to various substrates. These materials are ideally suited for architectural applications.

TCI's Reveal™ ETFE Film Characteristics

- Thickness range from 0.0005" to 0.010" (12 to 250 mμ)
- Standard width: 60" (1,524 mm)
- Width up to 62" (1,575 mm) available
- Any slit widths available upon request
- Bondable (plasma treated or chemically etched) surfaces available
- Broad continuous use temperature range from
 - -328°F to 330°F (-200°C to 165 °C)
- Excellent non-stick / release properties
- High elongation and tear resistance
- Excellent light transmission (>90%) and clarity, high transmittance of ultraviolet and all but far infrared wavelengths
- · Superior weatherability in outdoor exposure
- Free of plasticizers, processing aids, or additives
- Low permeability to liquids, gases, moisture, and organic vapors



TCl's Reveal™ ETFE Films Availability

Reveal™ ETFE AG (Architectural Grade)

- Manufactured from 100% virgin premium grade ETFE resin
- ETFE AG 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
 - invaluable material for applications such as architectural roofing
- Available in clear, white, or printed films for solar control and shading. Standard patterns include:





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			Reveal™ ETFE AG
General Properties	Units	Test Method	Reveal*** ETFE AG
Specific Gravity		ASTM D792	1.74
	ft ² /lb/mil (m2/		
Area Yield	kg/25mµ)		110 (22.6)
Flammability		UL-94	V-0
Water Absoption	%		<0.03
Mechanical Properties			
Tensile Strength	psi (MPa)	ASTM D882	7,000 (48)
Elongation at Break	%	ASTM D882	300
Tensile Modulus	psi (MPa)	ASTM D882	140,000 (965)
Initial Tear Strength (2 mil film)	g	ASTM D1004	500
Propagation Tear Strength (2 mil film)	g	ASTM D1922	75
Folding Endurance (MIT)	cycles, ave.	ASTM D2176	>50,000
Thermal Properties			
Continuous Use Temp	°F (°C)	UL-746 B	330 (165)
Melt Point	°F (°C)	ASTM D3418	500 (260)
Coeff. of Lin. Thermal Expansion	in/(in °F)	ASTM D696	4x10 ⁻⁵
Optical Properties			
Refractive Index		ASTM D542	1.4
Light Transmission	%	ASTM E424	90
Product Offering			
Width	inches (mm)		Up to 62" (1,575)
Thickness	mils (µm)		4 (100), 6 (150), 8 (200), 10 (250)
Standard Colors			White, Clear

The above table contains typical representative values and is not to be used for product specification. Contact TCI for a formal specification.

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