Reveal™ ETFE Fluoropolymer Extruded Films

Ethylene Tetrafluoroethylene Film for use in Architectural Applications

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

TCI's Reveal™ ETFE Film Characteristics

- Thickness: 0.004 to 0.020" (100 - 500 µm)
- Standard width: 61" (1,550 mm)
- Width up to 62" (1,575 mm) available
- Any slit widths available upon request
- Plasma treated surfaces available

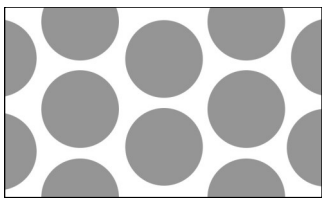
- Broad continuous use temperature range from -328°F to 330°F (-200°C to 165 °C)
- Excellent non-stick / release properties
- High elongation and tear resistance
- Excellent light transmission (>90%) and clarity, high transmittance of ultraviolet and all but far infrared wavelengths
- Superior weatherability in outdoor exposure

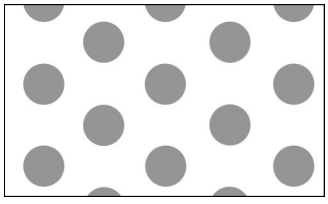
- Free of plasticizers, processing aids, or additives
- Low permeability to liquids, gases, moisture, and organic vapors

TCI'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 architectural roofing
- Available in clear, white, or printed films for solar control and shading. Examples of standard patterns include:





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			Reveal™ ETFE AG
General Properties	**Units**	**Test Method**	
Specific Gravity		ASTM D792	1.74
Area Yield	ft^2/lb/mil (m^2kg/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 Strain at Break (8 mil film)	%	DIN 527-1 (MD/TD)	622
Tensile Stress at 10% Strain (8 mil film)	MPa	DIN 527-1 (MD/TD)	44
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 (2-4 mil) (50 μm – 100 μm)	%	ASTM E424	94
Product Offering			
Width	inches (mm)		Up to 62" (1,570)
Thickness	mils (μm)		4 (100), 6 (150), 8 (200), 10 (250), 12 (300), 14 (350), 20 (500)
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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