

ETHYLENE TETRAFLUOROETHYLENE FILM FOR USE IN ARCHITECTURAL APPLICATIONS

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

TCl's Reveal™ ETFE Film Characteristics

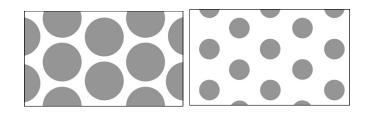
- Thickness: 500 µm
- Width up to 1,525 mm available
- Any slit widths available upon request
- Plasma treated surfaces available
- Broad continuous use temperature range from -200°C to 170°C
- Excellent non-stick / release properties
- High elongation and tear resistance
- Excellent light transmission (>80%) 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 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 500
General Properties	Units	Test Method	
Thickness	μm	DIN 53370	500 +/- 50
Mass per Unit Area	g/m²	DIN 536	885 +/- 88.5
Specific Gravity		ASTM D792	1.74
Flammability		UL-94	V-0
Flammability ¹		DIN EN 13501	B-s1; d0
Flame Propagation ²		NFPA 701-2015	Passed
Mechanical Properties			
Stress at 10% Strain, MD, nominal.	MPa	DIN EN ISO 527-3	18
Stress at 10% Strain, TD, nominal.	MPa	DIN EN ISO 527-3	18
Tensile Strength, MD, nominal.	MPa	DIN EN ISO 527-3	40
Tensile Strength, TD, nominal.	MPa	DIN EN ISO 527-3	40
Strain at Break, MD, nominal.	%	DIN EN ISO 527-3	400
Strain at Break, TD, nominal.	%	DIN EN ISO 527-3	400
Tear Strength, MD, nominal.	N/mm	DIN 53363	400
Tear Strength, TD, nominal.	N/mm	DIN 53363	400
Thermal Properties			
Continuous Use Temp	°C	UL-746 B	170
Melt Point	°C	ASTM D3418	260
Dimensional Change, MD, max.	%	150°C, 10 min.	2
Dimensional Change, TD, max.	%	150°C, 10 min.	2
Optical Properties			
Light Transmission, nominal. (Clear)	%	ASTM E424	82
Product Offering			
Width	mm		1525
Standard Colors			Clear, White, Blue

¹Reaction-to-fire test acc. to EN 13501, Materialprüfungsanstalt Universität Stuttgart

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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²NFPA 701-2015, Method 1 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.