

### 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: 100 µm
- Width up to 1,550 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 (>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

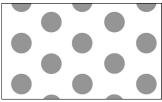


#### TCI's Reveal™ ETFE Films Availability

## 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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#### ETHYLENE TETRAFLUOROETHYLENE FILM FOR USE IN ARCHITECTURAL APPLICATIONS

			Reveal™ ETFE AG 100
General Properties	Units	Test Method	
Thickness	μm	DIN 53370	100 +/- 10
Mass per Unit Area	g/m²	DIN 536	175 +/- 17.5
Specific Gravity		ASTM D792	1.74
Flammability		UL-94	V-0
Flammability <sup>1</sup>		DIN EN 13501	B-s1; d0
Flame Propagation <sup>2</sup>		NFPA 701-2015	Passed
Mechanical Properties			
Stress at 10% Strain, MD, min.	MPa	DIN EN ISO 527-3	18
Stress at 10% Strain, TD, min.	MPa	DIN EN ISO 527-3	18
Tensile Strength, MD, min.	MPa	DIN EN ISO 527-3	40
Tensile Strength, TD, min.	MPa	DIN EN ISO 527-3	40
Strain at Break, MD, min.	%	DIN EN ISO 527-3	350
Strain at Break, TD, min.	%	DIN EN ISO 527-3	350
Tear Strength, MD, min.	N/mm	DIN 53363	300
Tear Strength, TD, min.	N/mm	DIN 53363	300
Thermal Properties			
Continuous Use Temp	°C	UL-746 B	170
Melt Point	°C	ASTM D3418	260
Dimensional Change, MD, max.	%	150°C, 10 min.	3
Dimensional Change, TD, max.	%	150°C, 10 min.	3
Optical Properties			
Light Transmission, min. (Clear)	%	ASTM E424	94
Product Offering			
Width	mm		1550
Standard Colors			Clear, White, Blue

<sup>&</sup>lt;sup>1</sup>Reaction-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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<sup>&</sup>lt;sup>2</sup>NFPA 701-2015, Method 1 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.