

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.

TCI's Reveal™ ETFE Film Characteristics

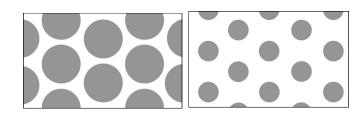
- Thickness: 300 µm
- Width up to 1,550 mm available
- Any slit widths available upon request
- Plasma treated surfaces available
- Broad continuous use temperature range from -200°C to 170°C
- Excellent non-stick / release properties
- High elongation and tear resistance
- Excellent light transmission (>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



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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TEXTILES COATED INTERNATIONAL | Manufacturer of High-Performance Fluoropolymer Films, Composites, and Laminates



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| | | | Reveal™ ETFE AG 300 |
|--------------------------------------|------------------|------------------|---------------------|
| General Properties | Units | Test Method | |
| Thickness | μm | DIN 53370 | 300 +/- 30 |
| Mass per Unit Area | g/m ² | DIN 536 | 530 +/- 52.5 |
| 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 | 86 |
| Product Offering | | | |
| Width | mm | | 1550 |
| Standard Colors | | | Clear, White, Blue |

¹Reaction-to-fire test acc. to EN 13501, Materialprüfungsanstalt Universität Stuttgart ²NFPA 701-2015, Method 1 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

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