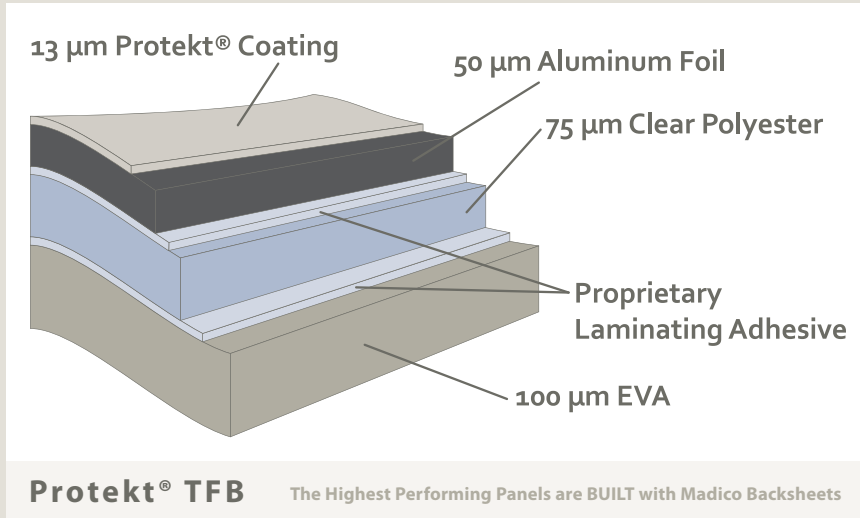


# Protekt® TFB

MADICO PV BACKSHEET



## Madico Protekt® Backsheets

The Market Leader for Performance, Quality and Availability

Protekt® TFB is a PV Backsheet developed specifically for Thin Film applications. It includes all the performance features of Protekt® with an aluminum layer to provide optimal barrier properties.

Protekt® Technology was specifically developed for the PV Industry. It is a coating that is directly applied to the base dielectric bonding layers of PET/EVA, resulting in a backsheet with excellent stability characteristics for vacuum laminating processes and outdoor use. Protekt® is the ultimate in flame resistance and durability against hydrolysis and chemical degradation. Protekt® has undergone extensive testing to exceed UL, TUV and industry standards, ensuring performance reliability for the life of the panel.

Protekt® is the most popular backsheet on the market and protects panels around the globe.

Material Composition	Protekt® / AL / PET / EVA
Thickness	254 ± 25 µm
Width Range	25 - 1830 mm
Weight	370 g/m <sup>2</sup>
Density	1.46 g/cm <sup>3</sup>
Protekt® Colors	White, Charcoal
EVA Colors	Bright White, Black, Clear, Custom Colors

### Technical Characteristics

<b>Tensile Strength at Break (MD/TD)</b> Internal Testing - Data Available	52 MPa (MD) 57 MPa (TD)
<b>Elongation at Break (MD/TD)</b> Internal Testing - Data Available	138% (MD) 98% (TD)
<b>Tear Strength (MD/TD)</b> Internal Testing - Data Available	4.0 N (MD) 3.2 N (TD)
<b>Dimensional Stability (MD/TD)</b> 150°C for 30 min, Internal Testing - Data Available	< 1%
<b>EVA Peel Strength from Encapsulant</b> Internal Testing - Data Available	≥ 70 N/cm
<b>MVTR</b> In accordance with ASTM F1249	≤ 0.005 g/m <sup>2</sup> x day
<b>Partial Discharge</b> IEC 60664-1	≥ 800 VDC

## Advantages

- Optimal barrier properties:  
 $MVTR \leq 0.005 \text{ g/m}^2 \times \text{day}$
- Global manufacturing and supply
- Exceeds industry testing standards
- Custom colors, including our patented Bright White Technology and Charcoal for BIPV
- Superior in weatherability
- Resistant to flame
- Ideal for Thin Film applications



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### Typical Data – Not Specification

The performance representations and suitability in this Data Sheet are based on testing accomplished by Madico or its agents. Since only the manufacturer of the panel is aware of the specific manufacturing processes and conditions which the product will undergo during assembly of the PV solar panels, and of the specific conditions in which the product will ultimately be used, it is the manufacturer's responsibility to determine whether the product is suitable for its intended end-use. Protekt® is a registered trademark owned by Madico, Inc.

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The accompanying product is protected by U.S. Pat. Nos. 7,579,083 and 7,338,707 and other US and foreign pending applications. V0802 R07