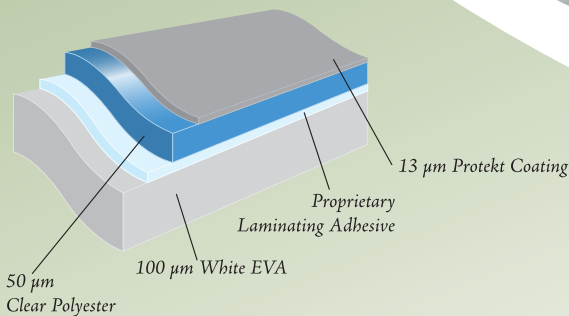


# Madico PROTEKT™

## Protekt



## Advantages of Protekt

- Bright White color
- Power boost proven up to 5%
- Maximum bond strength to encapsulant
- *Leaner & Greener™*

## Material Composition

### Protekt/PET/EVA

Thickness	172 ± 26 µm
Width Range	25 - 1,830 mm
Weight	194 g/m <sup>2</sup>
Density	1.05 g/cm <sup>3</sup>
Protekt Colors	White, Charcoal, Custom Colors
EVA Colors	Bright White, Black, Clear, Custom Colors

## Stability Characteristics

### Tensile Strength at:

Break (MD)	58 MPa
Break (TD)	67 MPa
Elongation at Break (MD/TD)	124%/63%
Tear Strength (MD/TD)	3.1/3.2 N
Dimensional Stability (MD/TD)*	<1%
EVA Peel Strength from	
EVA Encapsulant	≥70 N/cm
MVTR	≤4g/m <sup>2</sup> x day* <sup>2</sup>
Partial Discharge	≥800 VDC* <sup>3</sup>

\* 150C for 30 min

\*<sup>2</sup> ASTM F1249

\*<sup>3</sup> IEC 60664-1

Typical Data – Not Specification

## Description

Protekt is a multi-layered laminate developed to be a *Leaner & Greener™* photovoltaic backsheet, which produces dramatically less unit mass and adheres to a lean manufacturing process. Protekt Technology uses a high performance film cast in a special process that when applied to the base Dielectric Bonding layers of PET/EVA, results in a laminate with excellent stability characteristics for vacuum laminating processes and outdoor use. Solar panel makers can count on a backsheet that provides maximum power, bond strength, and weather resistance with aesthetically pleasing design options.

## Available in our patented Bright White Power Boosting Technology

The bright white characteristic of the EVA layer is proven to reflect a portion of light which falls into the spaces between the cells back onto the cell for conversion. The EVA compound with white pigments and fluorescent agents allow for the 1-5% boost in panel power.

## Dielectric Bond Technology



Madico has pioneered a more cost-effective and higher performing backsheet construction we call Dielectric Bond Technology (DBT) which eliminates the interior layer of PVF. Compared to the standard PVF/Polyester/PVF design, our innovative construction dramatically increases the laminate's bond strength, power output and insulation against electrical discharge.



ISO 9001 Certified

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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 be ultimately be used, it is the manufacturer's responsibility to determine whether the product is suitable for its intended end-use.

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