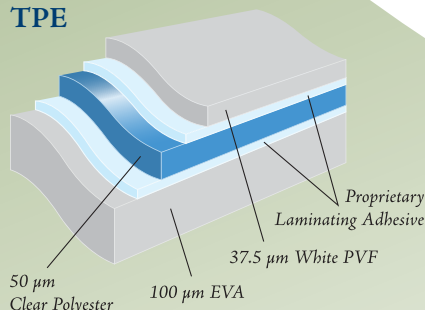


# Madico TPE

## TPE



## Advantages of EVA Layer

- ♦ Increased bond strength
- ♦ Improved aesthetic appearance
- ♦ Increased vacuum lamination throughput
- ♦ Width capabilities up to 72 inches

## Material Composition

### PVF/PET/EVA

Thickness	200 ± 30 µm
Width Range	25 - 1,830 mm
Weight	237 g/m <sup>2</sup>
Density	1.2 g/cm <sup>3</sup>
PVF Colors	Clear, White, Charcoal, Custom
EVA Colors	Clear, Bright White, Blue, Black, Custom

## Stability Characteristics

### Tensile Strength at:

Break (MD)	65 MPa
Break (TD)	83 MPa
Elongation at Break (MD/TD)	144%/89%
Dimensional Stability (MD/TD)*	<1%/1.6%
EVA Peel Strength from	
EVA Encapsulant	≥70 N/cm
MVTR	≤4 g/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

TPE is a multi-layered film lamination designed to be used as a backing sheet for photovoltaic solar panels. It acts as a durable protective barrier for panel shaped electronic devices that undergo heat and vacuum lamination. The TPE construction provides very high bond strength to most encapsulating materials and has excellent dielectric strength.

## 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 backsheets 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.



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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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