



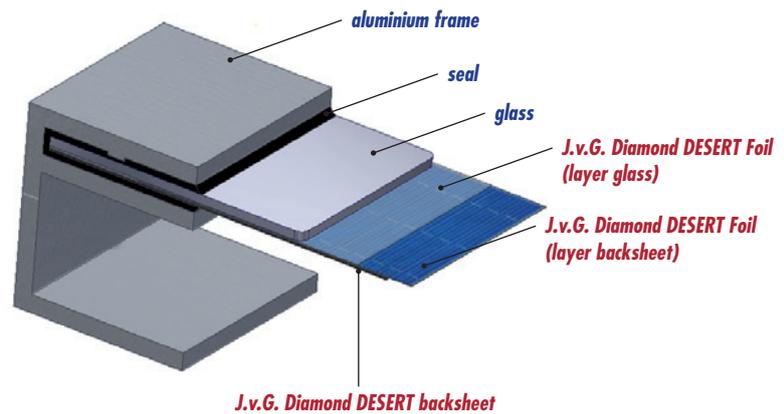
DESERT Technology

Increasing Power Output
Extending Module Lifetime (up to 75 years)
Maximum (sustained) Temperature up to 145 °C
100% no PID
Proven German/Bavarian quality

Continuous research and development plays a major role in opening up new possibilities in the manufacturing of solar modules. At J.v.G Thoma GmbH we consider it our job to be a pacemaker in this process.

For this reason, the data and measurements given in this product data sheet can be subject to change at short notice. No legal claims may be derived from the contents of these product data sheets. J.v.G Thoma GmbH assumes no liability for the usage of the information contained therein or for any consequences resulting there from.

Figure 1: Photovoltaic using J.v.G.Diamond DESERT Foil



DESERT Advantages

100% no PID

Our measurements showed 100% no PID. Tested at J.v.G. Thoma laboratory.

May 2014

Lukas Ziajski

Head of research department



Maximum (sustained) Temperature

125°C average
145°C (maximum 5 minutes)

Proven German/Bavarian quality

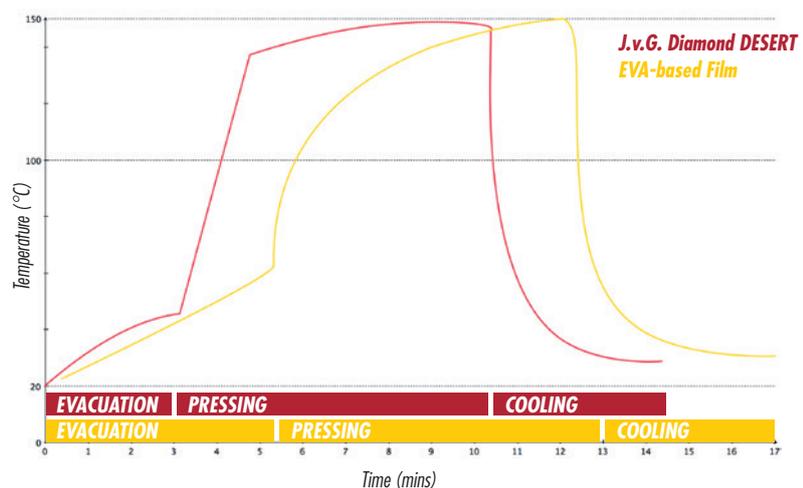
Developed at J.v.G. Thoma GmbH in cooperation with Jurawatt Vertriebs GmbH

Processing Advantages

No crosslinking during lamination

- Up to 30% reduced cycle time
- Increased yields and capacity
- reduced conversion costs

Figure 2: Lamination Cycle Time Comparison



Performance Advantages

J.v.G. Diamond DESERT Foils provide significantly improved electrical performance. High volume resistivity and low leakage current improve electrical insulation and enable „PID Zero“ performance. As illustrated in the figures below, improved electrical performance results in increasing energy yield.



Key Technical Attributes

- 10-20x lower Water Vapor Transmission Rate (WVTR)
- Outstanding Volume Resistivity
- No generation of acetic acid
- Non-yellowing

Performance Advantages

- Significantly reduced degradation rates
- „PID Zero“ performance

Figure 3: „PID Zero“ Diamond DESERT Foil vs. Conventional EVA Film

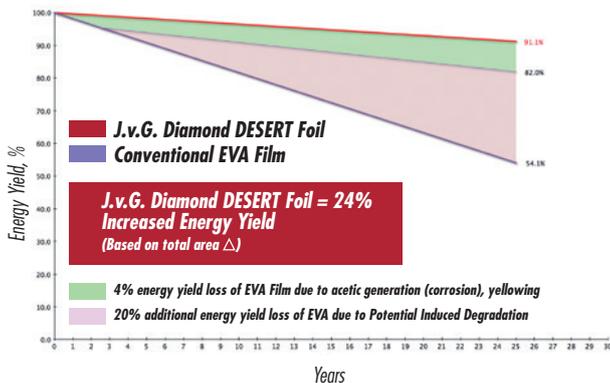


Figure 4: „PID Zero“ Diamond DESERT Foil vs. „PID Free“ EVA Film

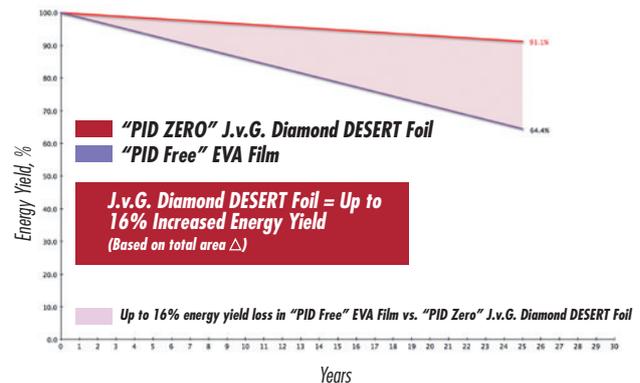
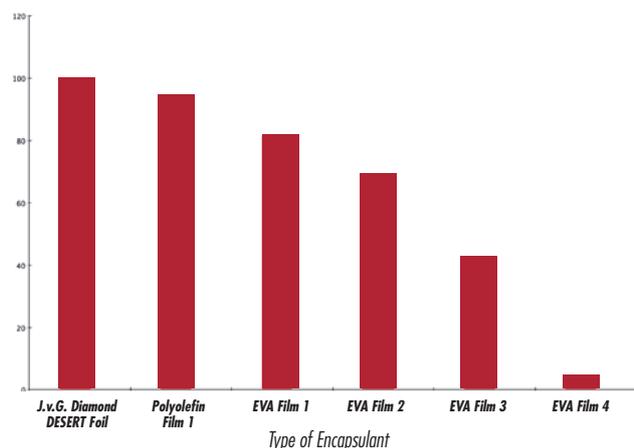


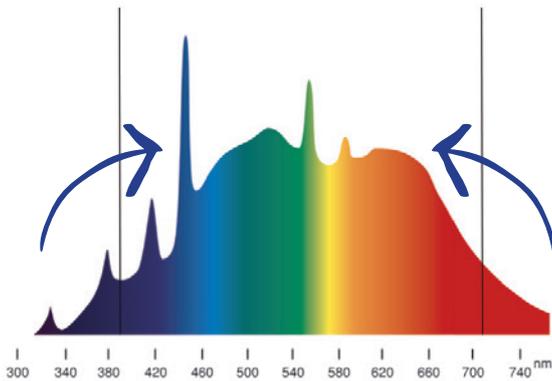
Figure 5: PID Performance (85% RH, 85°C, -1000V, 48 Hours)



>3% more power with

- J.v.G Diamond DESERT Foil layer glass +3%
- J.v.G Diamond DESERT Foil layer backsheet +3%
- J.v.G Diamond DESERT Foil backsheet +3%

Nano coating in Foil we get more then 3% more power output as "best EVA foils". Converting/shifting of photons is the key technology to make it available for solar cell conversion. Material is in internal tests (>1000 cycles proven) and in certification process. Ask for delivery time for your special need.



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