

Tomark-Worthen LLC Awarded Department of Energy SunShot Award for Novel Photovoltaic Backsheet Development

August 8, 2017, [Nashua, NH] – Tomark-Worthen LLC, an organization that manufactures solar film and sheet to the photovoltaic industry, announced that it was selected to receive a \$560,000.00 award from the U.S. Department of Energy SunShot Initiative. This award was presented to Tomark-Worthen for the development of a novel photovoltaic backsheet that exceeds 30 years of service life at a reduced cost than current high-performance materials being sold on the market today.

The project, titled “Cost-Efficient and Highly Weather-Resistant Solar Panel Backsheet Produced through Continuous Co-Extrusion Processing”, will utilize co-extrusion processing of novel polymeric materials to produce solar backsheet that provides insulation and environmental protection to solar modules. This revolutionary technology being developed by Tomark-Worthen is based on UV resistant polymers that are proven in outdoor applications. No polyethylene terephthalate (PET) or fluoropolymers are used in the construction of this technology, making it cost-effective while eliminating backsheet failures caused by degraded PET after only a few years of service. The backsheet is manufactured using a single-step process, unlike many other systems that rely on multiple layers of adhesive that are known to fail over time. The Tomark-Worthen process is environmentally friendly as it does not use solvents and scrap material can be recycled in the manufacturing stream.

Tomark-Worthen LLC was selected as a part of the SunShot Initiative’s Technology to Market 3 funding program, which accelerates the research and development of next generation solar power technologies. To maintain its exponential growth, the solar industry needs a variety of products and services that can increase system values while reducing costs, facilitate grid integration, and increase consumer access to solar. This research enables entrepreneurs to prove the feasibility of their product and ready it for private sector follow-on support.

This is Tomark-Worthen’s first SunShot Award and it is expected that photovoltaic backsheet generated from this project will receive certification for use in the solar industry by the fourth quarter of 2019. Tomark-Worthen is currently supplying photovoltaic backsheet under the trade name “PhotoMark Reflections”, which is manufactured in Nashua, NH USA.

Upcoming Tomark-Worthen Events

- Solar Power International Exhibition – September 10-13th, Mandalay Bay Convention Center, Las Vegas, NV
 - Tomark-Worthen will be launching their new PhotoMark® Reflections™ high performance backsheet material as well as their current line-up of photovoltaic films at Booth # 444
 - Dr. Christopher Thellen, Product Development Engineer for Tomark-Worthen, will present a technical poster titled *“Novel Multilayer Photovoltaic Backsheet Produced through a One-Step Co-Extrusion Process: Advantages and Challenges”* at the exhibition’s poster session on Monday, September 11th

- European Photovoltaic Solar Energy Conference and Exhibition – September 25-29th, RAI Convention and Exhibition Center, Amsterdam, The Netherlands
- Dr. Christopher Thellen, Product Development Engineer for Tomark-Worthen, will give an oral presentation titled “Co-Extrusion of a Novel Multilayer Photovoltaic Backsheet Based on Polyamide-Ionomer Alloy Skin Layers” on Wednesday, September 27th

About the SunShot Initiative

The [U.S. Department of Energy SunShot Initiative](#) is a national effort to drive down the cost of solar electricity and support solar adoption. SunShot aims to make solar energy a low cost electricity source for all Americans through research and development efforts in collaboration with public and private partners. Learn more at energy.gov/sunshot.

For more information contact:

David Santoleri
President
Tomark-Worthen LLC
Dave@Tomark-Worthen.com
610 978 1889