



Inspired Brands.  
Intelligent World.™

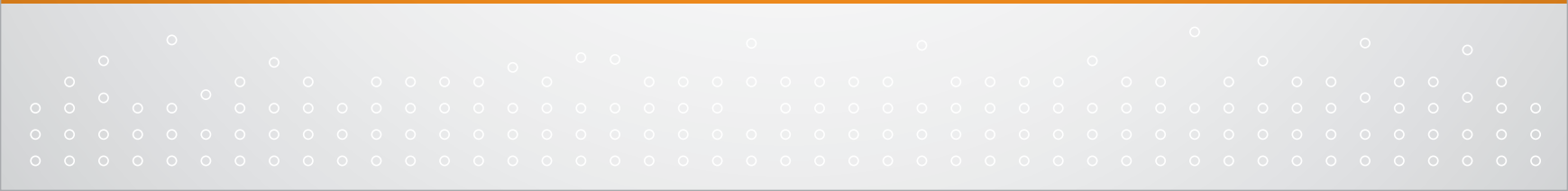
Photovoltaic

# Complete solutions for photovoltaic modules



## Power up with brilliant solutions

Complete solutions for photovoltaic modules



# Power up with our labeling solutions

*Solar panels work hard. Positioned to capture sunlight and transform it into electrical energy, they are exposed to the destructive effects of UV and infrared rays throughout the year. Panels have to stay efficient to create value, while resisting long-term effects of the elements, chemicals and general weathering.*





## Avery Dennison Technology Centers of Excellence

- Leiden, *The Netherlands*
- Kunshan, *China*
- Pennsylvania, *United States*
- Ohio, *United States*
- California, *United States*



**We have come up with a leading product portfolio comprising high-performance backsheets, tapes and labels that equip your panels from manufacturing to installation, and protect them from degradation. As a trusted leading supplier in the photovoltaic industry, Avery Dennison is committed to delivering one-stop, cost-effective and fit-for-purpose solutions that match your needs.**

Our dedicated Technology Centers of Excellence drive cutting-edge solutions to address your present and future needs. Technical and laboratory support teams located around the world can assist you in areas ranging from design and selection of labels to internal testing and qualification on key performance requirements, making your processes simpler. Expect customized solutions that are less complex and more efficient, leading to lower total cost of ownership for module manufacturers over time.





## In the spotlight

### Outstanding solutions for outdoor applications

Labels and tapes have to be built to take on the outdoors. Panels generate electrical energy in a harsh operating environment. They are constantly exposed to moisture, heat and UV rays. Therefore, we put our products through rigorous testing to ensure they are able to stand up to such conditions.

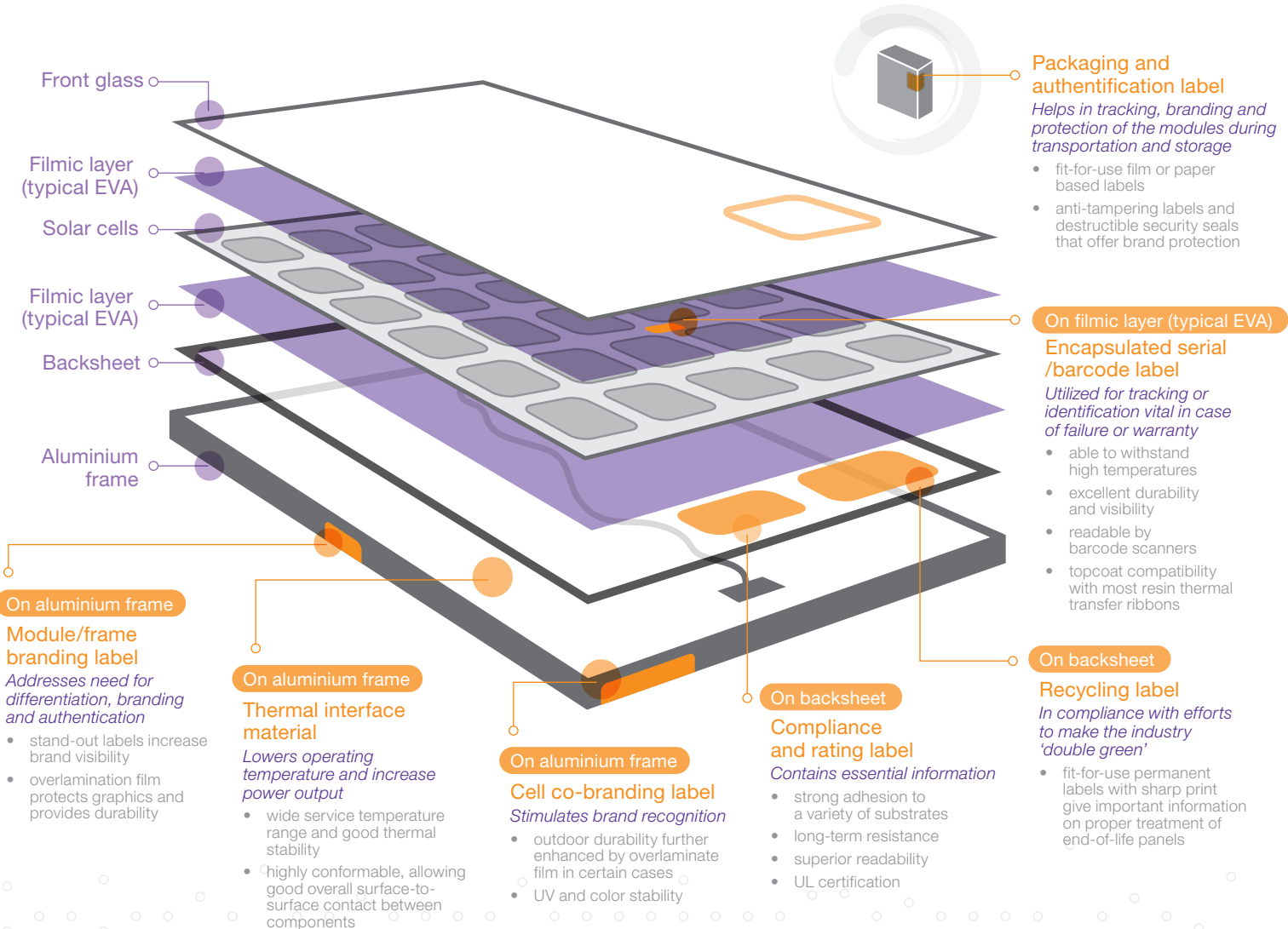
We employ materials that offer optimal thermal conductivity, which enable efficient dissipation of heat. This lowers the operating temperature, increasing your energy efficiency and power output for photovoltaic modules. Able to withstand temperature fluctuations between  $-30^{\circ}\text{C}$  to  $90^{\circ}\text{C}$ , Avery Dennison offers UL and IEC certified products that work well on all



typical photovoltaic substrates and demonstrate strong resistance and stability. Our next generation of backsheets are developed with 30 years of experience in delivering engineered coats and advanced films, giving you high performance solutions that stand the test of time.



# Photovoltaic modules labeling solutions





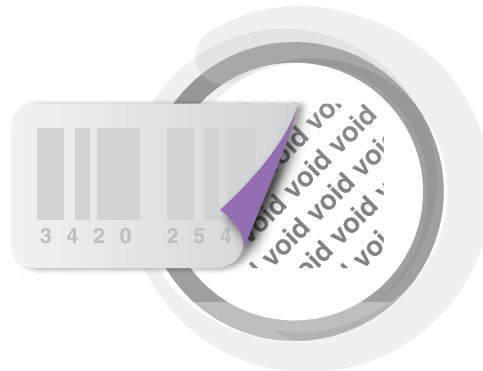
## Solutions that safeguard your brand

Combat product counterfeiting and tampering with our dedicated range of brand security solutions. To bolster your security needs, come explore with us customized options to protect your products' authenticity. You can also gain control over the tracking and identification of your products through our reliable radio frequency identification (RFID) labels and tags.



## The choice is clear

Avery Dennison offers labels that read better, stay on longer, and can be protected by overlamination films. This gives your brand greater visibility and heightened durability. Engineered to be highly durable and resistant to weather and chemicals, our solutions minimize injury or accidents as critical information on usage, safety and panel installation gets conveyed across throughout a panel's lifetime.



# Experience brilliant solutions that come with exceptional service

- Comprehensive portfolio of high-performance materials tested for performance, consistency and durability
- Regional research and development centers provide rapid prototyping capabilities, material analysis and performance testing
- Mix-and-match from ready-made options or explore customized solutions to meet unique requirements
- Expertise in compliance standards and industry requirements
- Converter-friendly programs allow small quantity orders and roll widths tailored to your needs, reducing trim, waste and inventory-keeping
- On-site trainings



Besides delivering proven quality labeling products, Avery Dennison provides full product and technical support, giving you attentive worldwide service. Flexible order quantities that fit your requirements give you added advantage along with prompt deliveries that minimize inventory costs.

***After all, we make bright solutions readily accessible.***

## About Avery Dennison

Avery Dennison (NYSE:AVY) helps make brands more inspiring and the world more intelligent. For more than 75 years the company has been a global leader in pressure-sensitive technology and materials, retail branding and information solutions, and organization and identification products for offices and consumers. A FORTUNE 500® company with sales of \$6.5 billion in 2010, Avery Dennison is based in Pasadena, California and has employees in over 60 countries. For more information, visit [www.averydennison.com](http://www.averydennison.com).

To learn more about great solutions for all of your photovoltaic modules and their packaging, please contact us at [durablesteam@averydennison.com](mailto:durablesteam@averydennison.com).

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Label and  
Packaging Materials

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