



# UHB Metallized PET Laminates For Vacuum Insulation Panels (VIPs) Product Overview

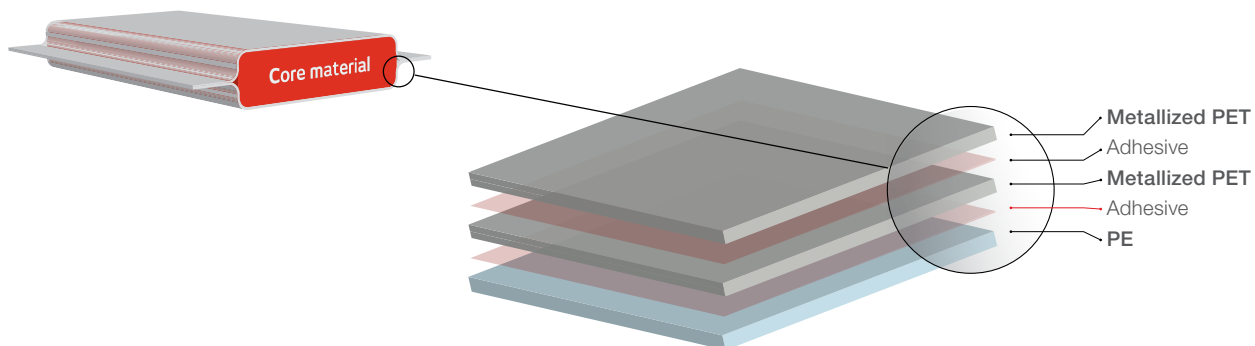
## Multilayer, ultra-high barrier metallized PET-based laminates for VIP envelopes

Avery Dennison® Hanita metallized PET-based (MetPET) laminates deliver ultra-high barrier to air and water vapor, robust mechanical strength, and low effective thermal conductivity. Constructed from polyester films coated with a sub-micron layer of aluminum laminated to polyethylene, PETMet laminates deliver excellent levels of protection from permeation of atmospheric gasses and moisture, ensuring the long-term integrity of the VIP.

Innovative metallization processes achieve high levels of barrier to moisture permeation, reaching MVTR  $<0.015$  gr/m<sup>2</sup>day, 38°C 90% RH, and an OTR below detection level by existing commercial measuring equipment. The films' robust strength resists mechanical stress and strain to prevent damage during fabrication and installation, sustaining the service life of the VIP. Above all, the low thermal conductivity of Avery Dennison Hanita MetPET films minimizes thermal bridge, thereby preserving overall low total effective thermal conductivity, and enabling highly effective insulation of the application along its lifetime.

Check out our MetPET VIP laminates with flame retardant options, high heat - and moisture-resistant properties and extra strong protective layers.

## Typical structure - MetPET bilaminate



# The advantages:

- > Ultra high barrier properties with effective metal adhesion help prevent de-metallization
- > Stress resistance—mechanically robust lamination structure
- > Negligible thermal bridge
- > Improved heat seal—very low Oxygen permeation from flanges, high heat seal strength
- > High resistance to corrosion
- > High lamination strength

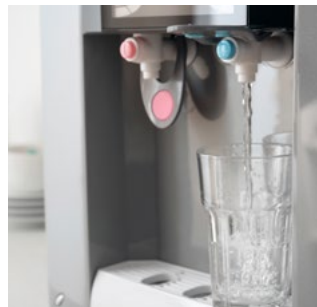
## Applications



Construction



Refrigeration



Small cooling appliances



Thermal packaging

## About Avery Dennison

Avery Dennison Corporation (NYSE: AVY) is a global materials science and manufacturing company specializing in the design and manufacture of a wide variety of labeling and functional materials. The company's products, which are used in nearly every major industry, include pressure-sensitive materials for labels and graphic applications; tapes and other bonding solutions for industrial, medical and retail applications; tags, labels and embellishments for apparel; and radio-frequency identification (RFID) solutions serving retail apparel and other markets. Headquartered in Glendale, California, the company employs approximately 30,000 employees in more than 50 countries. Reported sales in 2018 were \$7.2 billion.

Learn more at [www.averydennison.com](http://www.averydennison.com)

### Please review the Storage Conditions and Sealing Parameter Technical Sheets.

Optimal conditions may vary according to equipment used. These and product data sheets can be downloaded at: <https://hanita.averydennison.com/na/en/home/customer-tools/vip-laminates-ds-td.html>

For further information contact [barrier.laminates@eu.averydennison.com](mailto:barrier.laminates@eu.averydennison.com)

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