



Aluminum Foil Laminates

For Vacuum Insulation Panels (VIPs)

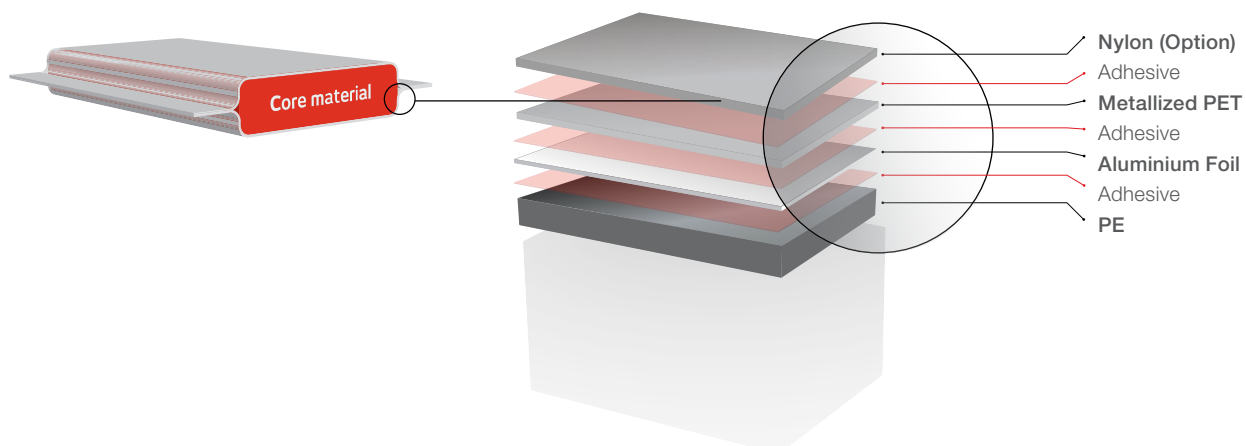
Product Overview

Absolute barrier Aluminum foil-based laminates for VIP envelopes

Avery Dennison® Hanita offers an extensive range of Aluminum-foil (Al-foil) based multi-laminates engineered to enhance the longevity of VIP envelopes requiring an absolute barrier for long-term applications.

These Al-foil, metallized polyester and polyethylene based laminates provide total* protection from permeation of atmospheric gasses and moisture, with minimal permeation through the heat-seal layers. The films' exceptional barrier is ideal for targeting harsh environment applications.

Typical structure



*GTR (Gas Transmission Rate) @ 22°C/50% RH =<2.0 [cc (STP)/ m2/year]

The advantages:

- > Exceptional metal adhesion minimizes breakdown of laminate
- > Relatively low thermal bridge, due to thin 6µ aluminum foil
- > Optional Nylon layer - mechanical protection
- > Improved heat seal layer
- > High corrosion resistance

Applications



Refrigeration



High temperature applications

We recommend the formation of a hybrid envelope consisting of Avery Dennison Hanita Al-foil laminates on one side of the bag combined with Avery Dennison Hanita ultra-high barrier metallized MetPET films on the other side. This hybrid envelope dramatically decreases the effects of heat bridge and substantially reduces moisture vapor and GTR – providing an optimal solution **for fiberglass core VIPs in refrigeration or elevated temperature applications.**

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

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

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