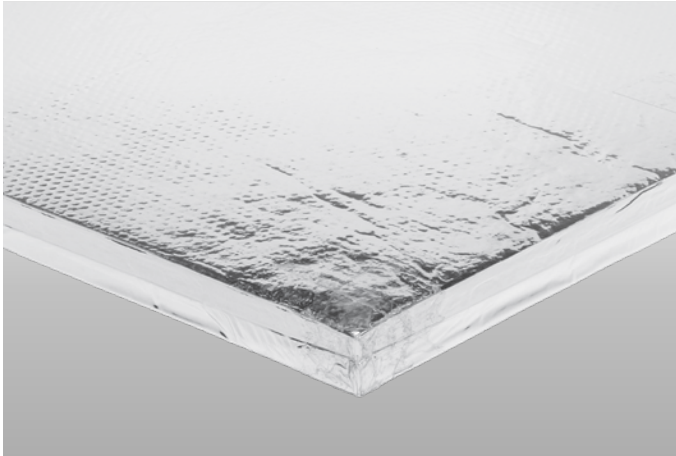


# Panasonic ADVANC-R® Vacuum Insulation Panel



## Overview

Panasonic ADVANC-R Vacuum Insulation Panel (VIP) is an insulation panel made of a highly porous glass wool structure, and adsorbents in a vacuum-sealed aluminum-laminated bag. The vacuum drastically reduces the transfer of heat through the VIP. The patented Fiber Layer Arrangement Technology (FLAT) radically improves thermal performance by aligning the glass wool to significantly reduce thermal conductivity by 60% vs. conventional random orientation.

## Features and Benefits

- » Industry-leading R-66 center of panel
- » Great solution for re-roofing with height limitations
- » Internal space maximizer for new construction
- » Class A rated for flame and smoke

## Panel Characteristics

- » 22.4" x 24" (570 x 610 mm) or 22.4" x 48" (570 x 1220 mm)
- » Panel thickness 0.94" (24 mm)

## Applications

Single-ply roof systems (ballasted and fully adhered).

## Sustainable Attributes

Made of non-toxic and environmentally friendly materials. Consists of 100% non-toxic materials. As much as 97% of VIP (by weight) can be recycled.

## Installation

Insert ADVANC-R between protective layers. In order to maximize R-value, stagger the joints of each layer of the roofing system. Only use manufacturer's approved adhesives to attach ADVANC-R to other layers of the roofing system. Do not use fasteners, screws, nails, staples, etc. Ensure no foreign or sharp objects (burrs, metal shavings, screws, nails, etc.) touch the ADVANC-R. Panel should be installed at least 8" away from parapet walls, mechanical roofing penetrations, or any other obstructions on the roof. Stepping on the VIP may compromise the outer bag. Inspect panels to ensure they are firm and dry and keep dry at all times. Install panels with highly reflective side up.

- » Certain actions may compromise the outer bag and affect thermal performance:
  - Do not cut
  - Do not mechanically fasten
  - Do not puncture
  - Do not expose to water, rain, snow, or moisture
  - Do not bend

*Review Carlisle specifications and details for complete installation information.*

## Precautions

- » When stored in a warehouse:
  - Maintain ambient temperature below 104°F (40°C).
  - Ensure ambient humidity is below 50% RH.
- » Transport panels in specialized packaging and keep pallet level. Maximum height of two pallets stacked.
- » When securing palletized panels with straps, always use edge/strap protectors and do not use excessive tension as this may damage the packaging and panel.
- » Protect panel with waterproof tarp during transport and when storing. Store indoors in a well-ventilated area. Do not remove from pallet when storing.
- » Do not apply more than 14.3 psi of pressure on panels when adhering to the substrate.

## Typical Properties and Characteristics

Physical Property	Test Method	Value
Flame Spread Index	ASTM E84	Class A (25)
Smoke Development Index	ASTM E84	Class A (10)
Density	ASTM C1667	18.08 lbs/ft <sup>3</sup>
Compressive Strength @ 25%	ASTM C165	34.6 PSI
Thermal and Humid Aging (after 2 weeks)	ASTM D2126	7.43%
Service Temperature		-40-140°F (-40°-60°C)