

U-Vacua® Vacuum Insulation Panels - Handling Guidelines



PROTECT FROM PUNCTURE

Vacuum insulation panels cannot be handled or installed in the same manner as traditional thermal insulation products.



- **Protect until Ready to Use**

- Place Tarp over boxes on pallet when Outdoors
- Store Flat and Protect from Water, excessive heat, and direct sunlight



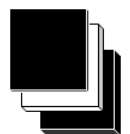
- **To Unpack - Cut Bands and Lift Top**

- Do not cut or puncture the box



- **Check and Prepare Underlying Surfaces**

- Sweep or clean off surfaces and Remove any sharp points or protrusions



- **Use protective layers**

- Such as placing between other insulation types, air barriers, or sheathing
- Fill in any gaps with cut-able insulation materials
- Alternating layer seams can help reduce thermal bridging



- **Use hotmelt or adhesives, construction tape, Spray foam or framing system to install**

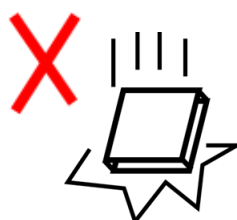
- Can use industry standard materials, but **avoid solvent-based adhesives**
- Press fit or friction fit along the sides of the VIP panel is not recommended



Do not - puncture, drill, cut, screw, nail, staple, or saw.



Do not - walk directly on VIP panel.



Do not - drop or expose to strong force.



Do not - twist or bend.

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Reminder

The majority of a VIP's insulating value is from the inner vacuum. In a vacuum, heat cannot travel through the air by conduction or convection. This limited ability for heat to travel in a vacuum is what gives vacuum insulation panels such a high R-value. As a result, it is important to maintain the integrity of the vacuum, particularly during handling and installation. Care should be taken to avoid sharp corners, metal burrs, wood splinters during installation.

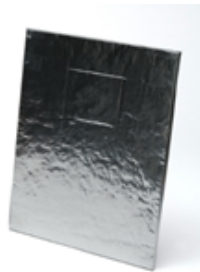
What does a Punctured VIP Panel look like?

A "good" VIP panel should be firm to the touch and retain its rectangular shape. A "bad" VIP panel, or one that has been punctured so that the vacuum is gone, will be squishy to the touch, and will not retain its shape well. It may appear puffy, like a pillow, as in Fig. A.

Fig. A Punctured VIP



Fig. B "Good" VIP



Storage

- Store flat on a pallet or box, elevated above the floor or ground, away from water. When pallet is in open air, cover with tarp and tilt one side an inch or more higher to assist in water runoff.
- Recommended storage conditions are in a well ventilated indoor area, at temperatures 104°F (40°C) or less and 50% Relative Humidity or less.
- Avoid storing in direct sunlight or near a heat source.
- Do not stack pallets on top of each other.

Safety

Intact VIPs are safe to handle. However, exposure to the inner contents of a panel may cause skin and serious eye irritation. The inner materials, such as glass fibers from the inner mat or adsorbent powder from the protective packet located inside the VIP panel, should not be inhaled, and eyes and skin should be protected. If exposure occurs:

- rinse eyes cautiously with water for several minutes
- wash skin with soap and water. If irritation continues, see a healthcare professional.

Use gaps or non-conductive materials as separators when installing near live wires.

Manufacturing Certifications

These part numbers are manufactured in facilities that have received and maintain the following certifications:

- OHSAS 18001:2007 Occupational Health & Safety Management Systems
- ISO 9001:2015 Quality Management Systems
- ISO 14001:2015 Environmental Management Systems