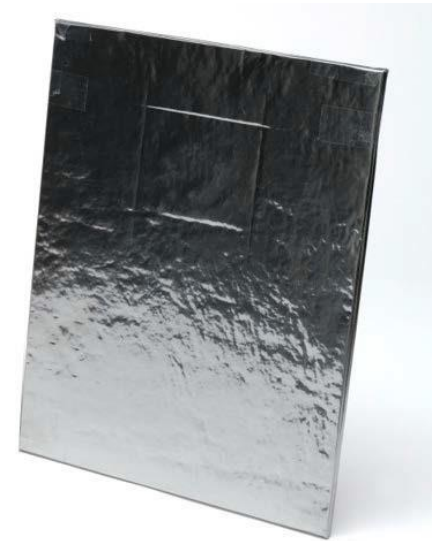


### U-Vacua® Vacuum Insulation Panels

U-Vacua® Vacuum Insulation Panel (VIP) technology has achieved one of the highest levels of heat insulation performance available for practical use. Our **super low thermal conductivity of 0.0020 W/mK** significantly can reduce the space required for insulation. As such, the super insulating capability of U-Vacua® VIPs has proven to be a **powerful tool for creating first class energy efficient designs.**

Panasonic has produced VIPs for decades, starting out as thermal insulation for an insulated hot water server in Japan. Over time, U-Vacua® technology has evolved to benefit a **broad range of applications.** VIPs can be used to advance the energy efficiency of any solution that needs to prevent heat transfer.



#### Features

- Maximum Thermal Protection (Thermal Conductivity = 0.002 W/mK)
- Thin Design
- Consists of 100% Non-Toxic Materials
- Help to Meet or Exceed Energy Efficiency Regulations and Standards
- Very Low Global Warming Potential (GWP)

**Applications:** U-Vacua® VIPs are configured to perform best for these applications – residential refrigeration, commercial refrigeration, portable containers, medical transport containers, and other cold chain storage products.

**Materials:** U-Vacua® panels consist of a unique glass fiber core and an adsorbent surrounded by laminate film. Together, the adsorbent and outer film maintain the integrity of the vacuum over many years. All materials comply to the RoHS Directive regulation, and the Panasonic Group Chemical Substances Management Rank Guidelines for Products, that prohibit select chemicals due to their negative environmental impact.

**Technology:** 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 thermal performance. It is important to maintain the integrity of the vacuum, particularly during handling and installation.

#### Available U-Vacua® Sizes

Part Number	Dimensions (Inch)		lbs Weight	mm		Per pallet	
	Width	Length		Width	Length	Panels	Sq. Ft
<b>0.94 Inches / 24 mm Thick Panels</b>							
CNRZZB77800	12.0	15.2	1.79	305	385	126	159
CNRZZB77900	15.0	19.9	2.88	380	505	132	273
CNRZZB78000	15.0	23.8	3.42	380	605	99	245
CNRZZB78400	24.0	24.0	5.49	610	610	66	264
CNRZZB78600	22.4	24.0	5.14	570	610	66	247
CNRZZB78700	12.0	24.0	2.80	305	610	99	198
CNRZZB78800	12.0	12.0	1.44	305	305	126	126
<b>0.59 Inches / 15 mm Thick Panels</b>							
CNRZZB98100	15.4	18.5	1.78	390	470	220	434
CNRZZB98200	16.1	37.8	3.76	410	960	110	466
CNRZZB98300	10.2	19.9	1.30	260	505	210	297
CNRZZB98400	26.4	38.2	6.12	670	970	55	385
CNRZZB98500	22.4	23.4	3.23	570	595	110	402
CNRZZB98600	11.8	20.7	1.54	300	525	140	237

#### Handling + Installation:

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



Precautions should be taken to maintain the internal vacuum. Without the vacuum, the thermal insulating performance is similar to standard fiberglass batt. Inspect VIP to ensure it is firm and dry.

**Installing:** Hotmelt, standard industry adhesives and tapes compatible with polyethylene are common ways to install VIPs.

**Safety:** Intact VIPs are safe to handle. However, exposure to the inner contents of a panel may cause skin and serious 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. In the case of contact with skin, wash with mild soap and running water for 15 minutes. In the case of contact with the eyes, rinse eyes cautiously with water for several minutes. If irritation persists, get medical attention.