

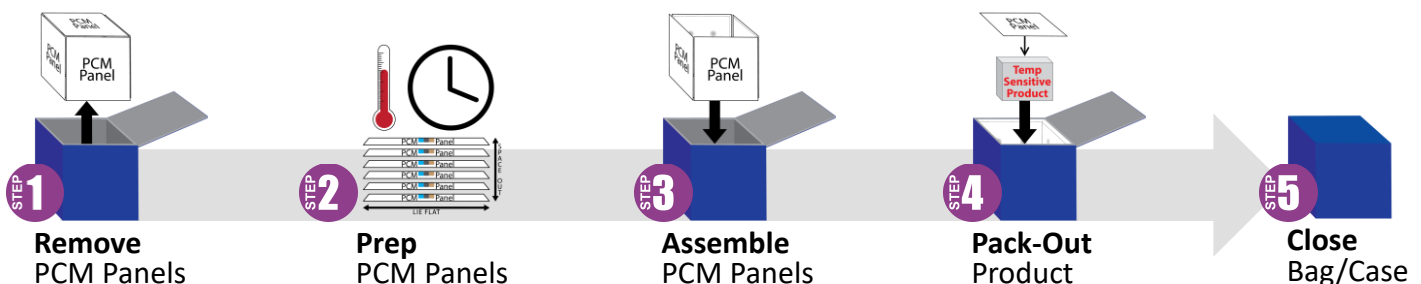
Cool Cube™

Best Practices

Call for
Technical Support
(608) 526-6901



- Prep the PCM (phase change material) panels before use according to one of the described methods provided by VeriCor.
- Ensure all components are clean and free of damage.
- Lay panels flat when turning them solid (to disperse liquid throughout the panel).
- Enable ample air flow around all panel sides.
 - Use spacers (pencils) or racks. →
- Freezing/melting times vary depending on number of panels being prepped and equipment being used.
- Assemble using all six panels for maximum hold time.
 - Using less panels does not change the holding temperature, but does decrease the hold time.
- Panels are reusable (10,000+ cycles).
 - End-of-life disposal: Panels are a plastic #2, typically recycled by businesses/communities. PCM is nontoxic and readily biodegradable.
- Use a calibrated data logger or other temperature monitoring device to observe internal temperature.
- Avoid unnecessary opening of the Cool Cube™ after loading payload. Opening of the Cool Cube™ will decrease hold time.
- An infrared temperature thermometer can assist in ensuring the panels reach a safe pack-out temperature (good for finding out the approximate temperature of each panel).
- The farther the ambient temperatures are from the melting point, the quicker PCM will change states (solidify/liquefy).



Various methods based on type of panel, equipment available & purpose.

Cool Cube™ Refrigerator PCM Panels

for vaccine, blood, medicine & more.

All Sizes



Blue Tab/Label



PCM Panel for **REFRIGERATOR** temps
(3-6°C / 37-43°F)

Remove Prep (Freeze/Fridge/Room Temp User Guide) Assemble Pack-Out Close

Part: CC-PCM-BV(Sz) C/N:

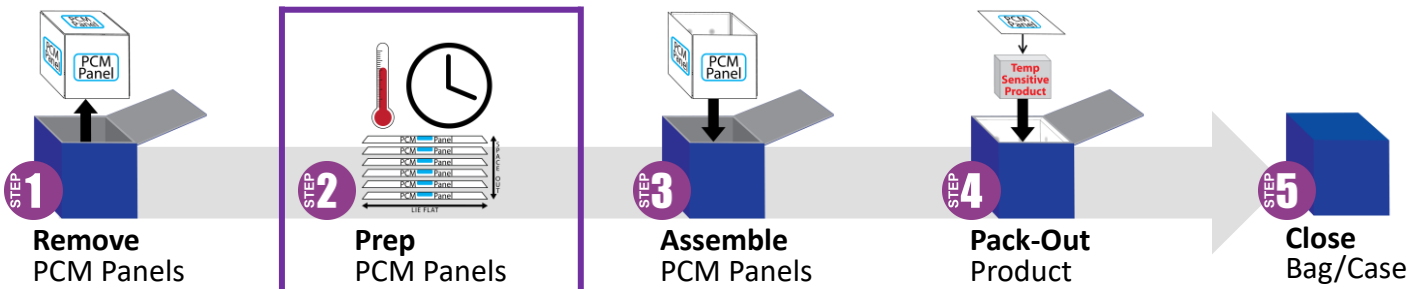
Do not expose to extreme heat (275°C) or use abrasive cleaners.

Troubleshooting User Guide Videos FAQs tel: +1 608 526 6901 VeriCorMed.com/PCM

Video



Prep Method B: Fridge ONLY Prep to keep product cold



This prep is for when the Cool Cube™ will be used for shorter durations.

Panel Prep

2.1 Lay panels flat in a refrigerator for a minimum of 24 hours before use.

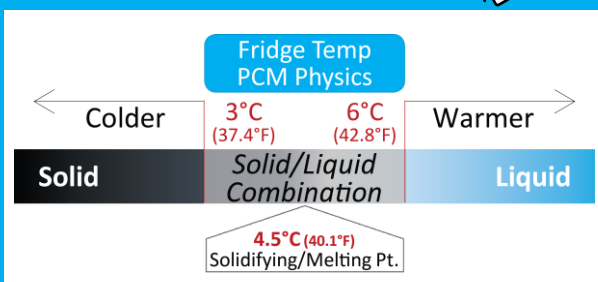
2.2 Shake panels to check the state of the PCM (phase change material inside the panel).



- If *liquid*...panel is at the fridge temp but above 5°C; anticipate shorter hold times.
- If *solid*...panel is at the fridge temp but below 4°C; ideal for maximum hold times.
- If *solid/liquid combination*...panel is at the fridge temp of 4-5°C; monitor time/temp.

In a refrigerator that maintains 4°C or below, the PCM will be solid (ideal for keeping product cold in warm/hot conditions). In a refrigerator that maintains 5°C or above, the PCM will be liquid. Although the PCM is liquid, the panel is at the temperature of the storage environment after 3 hours (i.e., stored in a 6°C fridge, the panels are at 6°C). Assembling the Cool Cube™ with liquid PCM panels (additional thermal mass) will help keep the product at its temperature, just for a shorter amount of time. Monitor Cool Cube™ temperature closely.

PCM Panel Shake Test



ISTA 7D Thermal Performance Study

Lab-Qualified Hold Times When Starting with Solid PCM

	Qualified Temps:	2-8°C	1-6°C	1-10°C
Cool Cube™ 03	Utilizing Six (6)	65 hrs	39 hrs	70 hrs
Cool Cube™ 08	Refrigerator Temp	76 hrs	53 hrs	83 hrs
Cool Cube™ 28	PCM Panels	103 hrs	68 hrs	108 hrs
Cool Cube™ 96	(Blue Tab/Label)	126 hrs	112 hrs	128 hrs

Times listed are based on lab-validated, 24-hour cycles of a summer profile (hot ambient temperatures) without the additional thermal mass of a payload, which if conditioned properly, will improve hold times. Actual performance times may vary.