

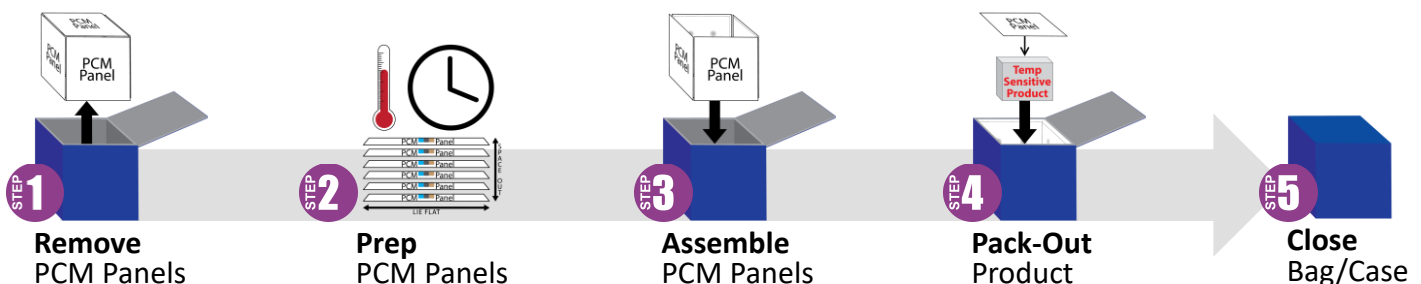
# Cool Cube™

## 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™ Room Temp PCM Panels

for FFPE, platelets, biospecimens & more.

All Sizes



Tan Tab/Label



PCM Panel for **ROOM** temps  
(20-23°C / 68-73°F)

Remove → Prep (Lab Incubator (see User Guide)) → Assemble → Pack-Out → Close

Part: CC-PCMP-R102  
S/N

Do not expose to extreme heat (27°C/81°F) or use pressure cleaner.

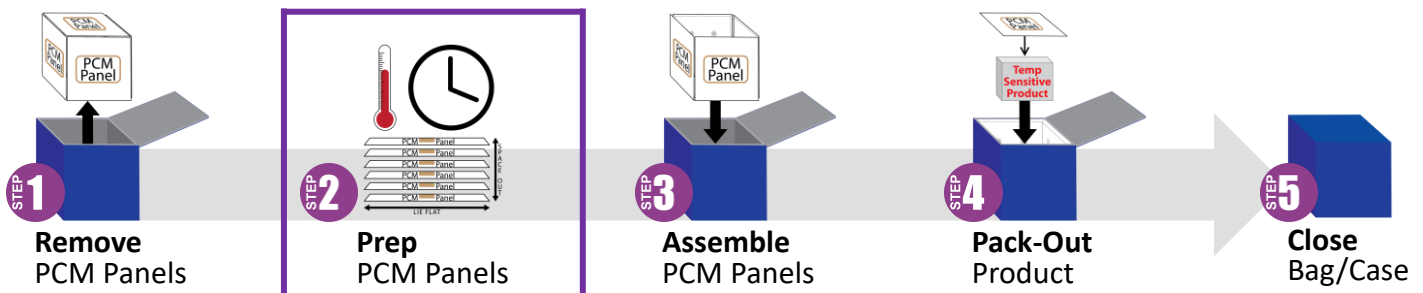
troubleshooting  
User Guide  
Videos  
FAQs

tel: +1 608 526 6901  
VeriCorMed.com/PCM

Video



## Prep Method A: Lab Incubator Prep to keep product cool



This prep is for when the Cool Cube™ will be used in hot environments (above 25°C).

### Panel Prep

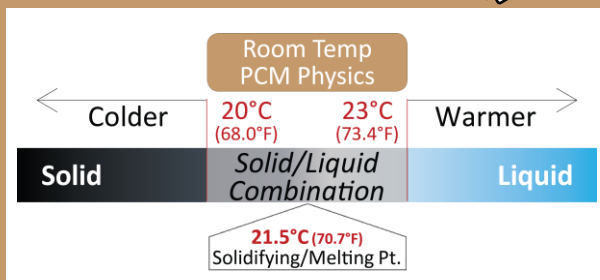
**2.1 Lay panels flat in a lab incubator** (or other 15-20°C environment) until all the PCM (phase change material inside the panel) turns solid. At 15°C/59°F the PCM will solidify in a day or two.\*

\* If the incubator temperature is ever warmer than 20°C, panels may not get completely solid (manufacturing tolerances). If stored within the temperature parameters of the product, but are still liquid, panels may be used but the hold time will decrease. Although panels are liquid, the PCM inside is at the temperature of storage environment after 3 hours (i.e. stored in a 22°C incubator, the PCM panels are at 22°C). Assembling the Cool Cube™ with this additional thermal mass will keep product at room temperature, just for a shorter amount of time than the lab-validated results.

**2.2 Shake panels to verify the PCM is solid.** If there is liquid, restart at step 2.1 to ensure the longest hold time. Using liquid PCM or panels with a solid/liquid combination decreases the hold time.



### PCM Panel Shake Test



### ISTA 7D Thermal Performance Study

Lab-Qualified Hold Times When Starting with Solid PCM

		Qualified Temps: 15-25°C	20-24°C
Cool Cube™ 03	<b>Utilizing Six (6)</b>	91 hrs	47 hrs
Cool Cube™ 08	<b>Lab Freezer Temp</b>	83 hrs	66 hrs
Cool Cube™ 28	<b>PCM Panels</b>	141 hrs	85 hrs
Cool Cube™ 96	<b>(Tan Tab/Label)</b>	143 hrs	91 hrs

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