

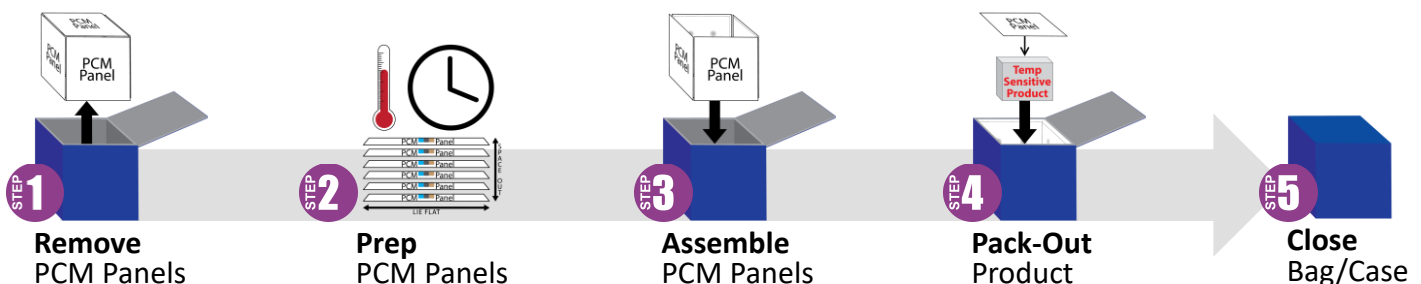
# Cool Cube™

## 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

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

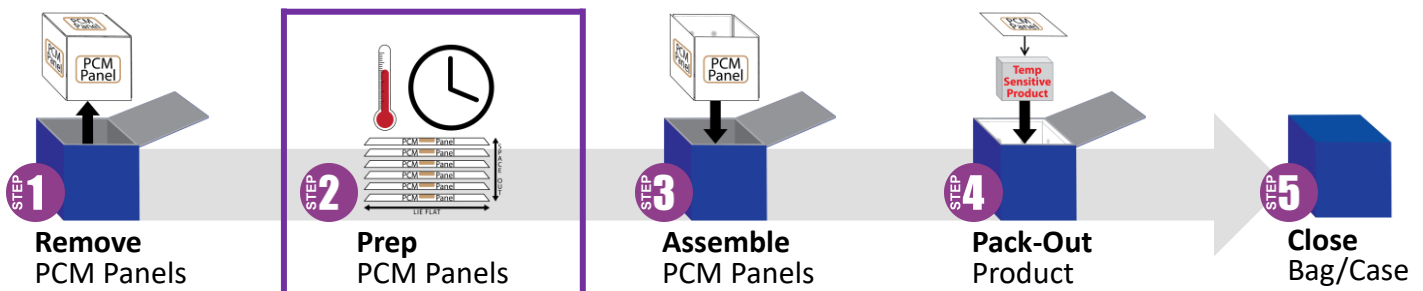
Part: CC-PCM-R102 S/N

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

Video



## Prep Method C: Lab Incubator Prep to keep product warm



This prep is for when the Cool Cube™ will be used in **cold conditions (below 15°C)**.

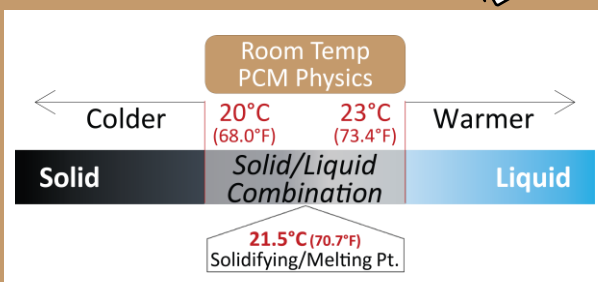
### Panel Prep

**2.1 Place panels in a lab incubator 23-24°C** for at least 24 hours before use so the PCM (phase change material inside the panel) is liquid.\*

\* Panels may be stored in the fridge until needed for assembly or the PCM solidifies. If an incubator maintains 23°C or above, the PCM within the panels will not get solid (the solidifying point is 21.5°C), keeping the PCM liquid indefinitely until pack-out. Liquid panels will protect the product from getting cold until the PCM inside becomes completely solid.

**2.2 Shake panels to verify the PCM is liquid.** If they are solid, restart at step 2.1 to ensure the longest hold time. Liquid PCM panels will prevent the product from getting cold (at room temps) in a cold environment the longest. Using solid 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.