

# Cool Cube™ Series 4 PCM Panels

Refrigerated Temps for vaccine, blood, medicine & more.

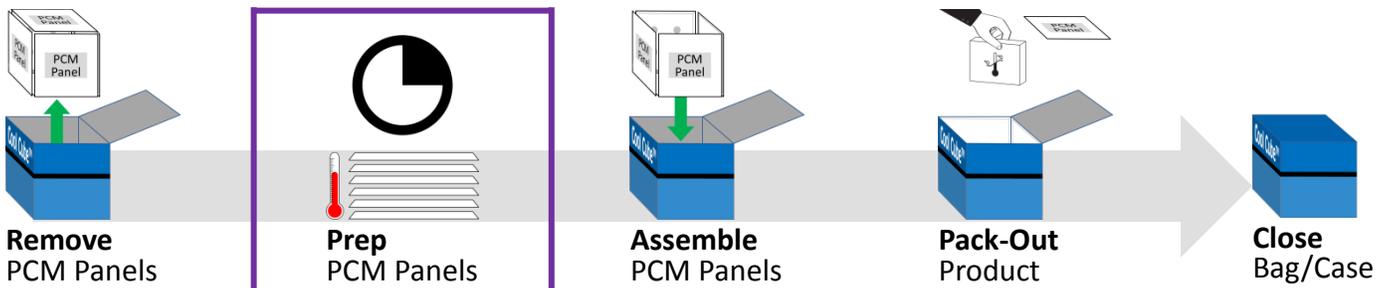
All Sizes



Blue Tab/Label



## 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

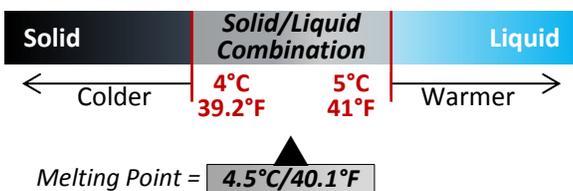
1. Store panels in a refrigerator for a minimum of 24 hours before use. Shake to check the state of PCM (phase change material inside the panel).
  - If *liquid*...panel is at the fridge temp but above 5°C; anticipate shorter hold times.
  - If *solid*...panel is at the fridge temp but below 4°C; ideal 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, PCM will be solid (ideal for keeping product cold in warm/hot conditions). In a refrigerator that maintains 5°C or above, PCM will be liquid. Although panels are liquid, the PCM inside is at the temperature of storage environment after 3 hours (i.e. stored in a 6°C fridge, the PCM panels are at 6°C). Assembling the Cool Cube™ with liquid panels (additional thermal mass) will help keep product at their temperature, just for a shorter amount of time. Monitor Cool Cube™ temperature closely.



### Cool Cube™ Series 4 PCM Panel Shake Test

Thermal Properties of Panels



### ISTA 7D Thermal Performance Study Temperature Hold Times

|               | Refrigerated Temps | 2-8°C   | 1-6°C   | 1-10°C  |
|---------------|--------------------|---------|---------|---------|
| Cool Cube™ 03 |                    | 65 hrs  | 39 hrs  | 70 hrs  |
| Cool Cube™ 08 | Series 4           | 76 hrs  | 53 hrs  | 83 hrs  |
| Cool Cube™ 28 | Blue Tab/Label     | 103 hrs | 68 hrs  | 108 hrs |
| Cool Cube™ 96 | (6-panel pack-out) | 126 hrs | 112 hrs | 128 hrs |

Times listed are based on lab-validated, ISTA 7D summer (hot conditions) and winter (cold conditions) 24-hour cycled shipping profiles without the additional thermal mass of a payload. Actual performance times may vary.

# Cool Cube™

## Best Practices

Call for  
Technical Support  
(866) 469-6019



- Always prep the PCM panels before use according to one of the described methods provided by VeriCor.
- Ensure all components are clean and free of damage.
- During prep, enable ample air flow around all panel sides.
  - Use spacers (pencils) or racks.....customer solution→
- Lay panels flat when “freezing”.
- Freeze/melting times vary depending on number of panels being prepped and equipment specifications being used.
- Assemble using all six panels for maximum hold time.
  - Using less panels does not change the holding temperature but does decrease hold time.
- Panels are reusable (10,000+ cycles)
  - End-of-life disposal: Panels use 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).

