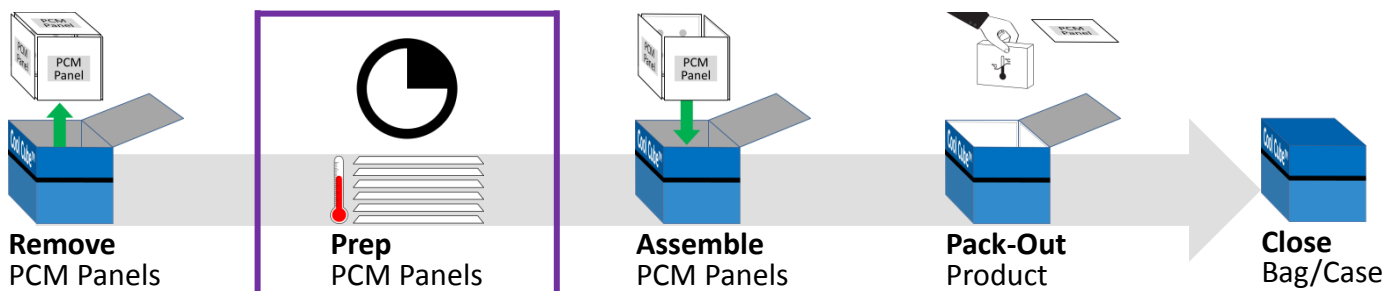


Cool Cube™ Series 20M PCM Panels


Frozen Temps for varicella, MMRV, Zoster, FFP & more.



Prep Method B: Dry Ice/Freezer Prep to keep product frozen



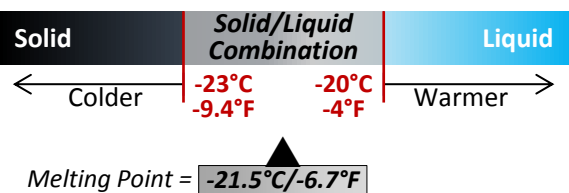
Panel Prep Stages

- Place panels with dry ice until PCM (phase change material sealed inside the panel) is solid. Shake to verify.** 
Time varies dependent on the starting temperature of the panels, size of panels, and amount of dry ice used. CAUTION: Dry ice has a surface temperature of -78.5°C; handle with care.
 - Transfer panels into a standard freezer 3 hours prior to use to allow PCM inside to rise to the appropriate operating temperature. Panels may be stored in the freezer until needed for assembly or the PCM melts.**
If a freezer maintains -23°C or below, the PCM within the panels will not melt (melting point is -21.5°C), keeping the PCM solid indefinitely until pack-out. If the freezer maintains -21.5°C or above, periodically check for melting and restart stage 1 to ensure maximum hold times.
- ❖ Before assembly, shake panels to estimate the state of the PCM. Solid PCM panels will keep product frozen in warm conditions the longest. Liquid PCM panels may be used but hold times will decrease.



Cool Cube™ Series 20M PCM Panel Shake Test

Thermal Properties of Panels



ISTA 7D Thermal Performance Study Temperature Hold Times

	Frozen Temps	-50 to -15°C
Cool Cube™ 03	Series 20M BlackTab/Label (6-panel pack-out)	62 hrs
Cool Cube™ 08		60 hrs
Cool Cube™ 28		94 hrs
Cool Cube™ 96		139 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

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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).

