Prep Method A: Freezer/Fridge Prep to keep product cold

Panel Prep Stages

1. Place panels in a freezer until PCM (phase change material inside the panel) is solid (i.e. 2 hrs. @ -15°C). Shake to verify.

2. Transfer panels into a fridge at least 3 hours before use. Panels may be stored in the fridge until needed for assembly or the PCM melts.
   
   *If a refrigerator maintains 4°C or below, the PCM within the panels will not melt (melting point is 4.5°C), keeping the PCM solid indefinitely until pack-out. If the refrigerator maintains 5°C or above, periodically check for melting and restart prep to ensure best performance.*

   ♦ Before assembly, shake panels to verify PCM is solid. If liquid can be heard, panels may be used but hold times will decrease.

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**Thermal Properties of Panels**

<table>
<thead>
<tr>
<th>Solid</th>
<th>Solid/Liquid Combination</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colder</td>
<td>4°C</td>
<td>5°C</td>
</tr>
<tr>
<td>Warmer</td>
<td>4.5°C</td>
<td>40.1°F</td>
</tr>
</tbody>
</table>

Melting Point = 4.5°C/40.1°F

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**ISTA 7D Thermal Performance Study**

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

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.

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For Technical Support Call (866) 469-6019

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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.

 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).