

# ORCA M -20°C Conditioning Guide

1. Shake the -20°C ORCA M bottles thoroughly before freezing. Place the bottles spaced out into a freezer until completely frozen (suggested minimum time of 72hrs at a maximum temperature of -30°C). Freezing sub zero PCM requires good airflow. Do not over fill your freezer. Stack bottles a maximum of three bottles high.



**Please note:** Freezing bottles at -40°C can speed up the process further but extra care should be taken when handling frozen bottles to avoid damage.

2. Once the ORCA M bottles have been stored for the appropriate time, they are ready to be assembled straight into the ORCA insulation.

3. The ORCA M bottles define a fixed payload space where temperature control is maintained. Place one bottle flat in the base of the ORCA case with the long edges facing the front and back of the system. Pack two bottles against the front and back of the ORCA case with the shortest edge in contact with the base of the ORCA insulation. Pack a further two bottles against the sides of the ORCA case, one on each side, with the longest side of the bottles resting on the bottom bottle. The payload can be placed into the area defined by the bottles. The remaining bottle can now be put on top in the same orientation as the bottom bottle. This bottle will be propped up by the two side bottles.



4. Close the outer case lid, secure the fasteners and seal with two strips of packing tape following the tape area marked with dotted lines. The ORCA is now ready to be shipped.

## NOTICE

Do not puncture, scratch or bend the white vacuum insulation panels. This may result in vacuum loss, which will significantly reduce system performance. Each panel should feel rigid, and have a tense surface. If the vacuum has been lost panels will feel soft, flaccid and have a loose fitting surface.

If you believe any panel has been damaged do not use this system and refer to your local SOP or your Intelsius representative for guidance.

**For alternative preparation protocols please contact Intelsius**