



Challenge:

Create a container that will protect highly sensitive and extremely valuable human tissues and will eliminate leakage problems, all while being reusable and easily prepped by third-party users.

Solution:

A unique container that completely surrounds payloads with sealed, precise and reliable phase-change material.

Benefits:

- Improved business relationships
- Enhanced brand image
- Cost savings due to zero product spoilage and greater payload space
- Increased ROI thanks to MTS reverse logistics services



Saving Lives, Saving Money, Saving Face Customized MTS Products and Services Make All the Difference in One Tissue Company's Operations

In the highly competitive world of medical products transport, image is everything. Customers and business partners must have faith that your organization's practices are stable, reliable and, most important, safe. Nowhere is this truer than in the extremely critical human tissue transport industry. It's a lesson New Jersey-based LifeCell learned firsthand. The company partners with more than 50 tissue recovery sites around the nation and regularly transports high-value, temperature sensitive tissue. For years, their primary means of thermally controlling these shipments was conventional foam coupled with ice. A logistics and image problem arose when ice packs would occasionally rupture during transport: by the end of the trip, melted ice would leak out and cause the outer corrugated box to become wet and spongy, a situation that was clearly unacceptable when the containers were labeled "human tissue."



The company approached Minnesota Thermal Science with their challenge and asked that, in addition to addressing the leakage problem, MTS design a solution that was reusable in order to reduce environmental impact. MTS responded within months with a new container uniquely tailored to LifeCell's temperature requirement. The containers are completely reusable and have dramatically changed the quality of service LifeCell's customers and partners receive – their fleet of 1,500 containers have carried over 10,000 shipments to date without a single loss of tissue. Also by eliminating the use of ice, the containers' entire payload space is open for tissue, which reduces the number of containers and total weight being shipped, resulting in significant savings in shipping costs and an increase in ROI.

Due to the essential nature of LifeCell's relationships with its tissue recovery partners, MTS also developed a robust reverse logistics system to ensure their customers and partners receive the best service possible at all times. In the resulting integrated closed-loop product flow, recovery sites send tissue to LifeCell in the Crēdo containers, which are then sent empty to MTS for refurbishment, and finally, MTS supplies the recovery sites with inspected and sterilized containers. In this way, MTS tracks and maintains inventory at the recovery sites, ensuring that LifeCell's vital partners are always provided with the containers they need in a clean, reliable state, ready for immediate use.

