

## Case Study

# Global pizza chain successfully executes customer shipment of dry and frozen ingredients, from Florida to Perú, in single temp container using a unique "PalletQuilt® Kit"

### Challenge

A major U.S. pizza chain exporting ingredients to Peru was faced with a need to ship three pallets of shelf stable ingredients on the same customer order as 17 pallets of frozen foods. Exposing room temperature products to a frozen environment jeopardizes quality and increases the risk of supply chain disruption. Shipping the three dry pallets via LCL would increase transportation costs substantially and potentially delay delivery of their customer's order. They were seeking thermal solutions that would allow them to consolidate these multi-temp products into one container. The freezing environment – temperature setting of 0°F – in it of itself presented a challenge for any thermal barrier to protect the shelf stable foods. The forced air circulation that occurs in a temperature-controlled container posed an even larger temperature risk, particularly for the bottom of the pallets.

### Solution

This application required a unique solution to guard against cold air circulating throughout the container, including the floor. Traditional thermal pallet covers only cover five sides of the pallet, which is sufficient for many applications. However, during a fifteen day journey where the ambient conditions remain frozen, a different type of thermal barrier would be needed to prevent freeze damage from beginning at the bottom and working its way through the rest of the pallet. QProducts & Services designed a thermal PalletQuilt Kit to solve this unique challenge. The application begins during the pallet building process where a thermal skid wrap is placed on an empty pallet followed by a corrugated pad. After the pallet is built, a four-corner closed PalletQuilt seals the top and sides. An industrial pallet band is used to secure the thermal skid wrap around the bottom, creating a 360 degree – or six sided – thermal solution to mitigate risk of temperature excursions during transit.



**Industry:**  
Food & Beverage  
(Food Ingredients)



**Application:**  
Ocean Container



**Route:**  
Florida to Perú



**Challenge:**  
Consolidate  
frozen ingredients  
onto single temp  
container



**Solution:**  
PalletQuilt thermal  
covers maintain  
temps across  
various products

## Results

According to the company's international department of transportation and logistics, their customer "received the cargo in perfect condition," after a total of fifteen days of travel by ocean. The reliable PalletQuilt Kit solution protected the integrity of the food items, in turn preventing any supply chain disruptions commonly associated with temperature excursions. Best of all, they ended up with a satisfied customer.

Complete, six-sided protection

Bottom wrap is secured with rubber band and out of the way of forks



Insulated bottom wrap protects bottom of pallet against freezing temperatures



“We needed to ship overseas dry and frozen products in the same container set to 0°F. After two weeks of travel, our customer received the cargo in perfect condition. This solution worked and we will continue to use in the future!”

— Team Leader, International Department, Major Pizza Company