

Case Study

How Price Chopper Supermarket® Delivers Frozen Ice Cream on a 36°F Trailer in Summer Heat

Challenge

In the competitive retail grocery industry, gaining efficiencies and reducing costs have been critical to providing customers with high quality service at competitive prices. Price Chopper Supermarkets saw an opportunity to gain competitive advantage by optimizing its delivery model. Its fleet of single-temperature refrigerated units (reefers) presented operational challenges to its large geographic footprint: Frozen goods and perishables were shipped separately, thus increasing equipment usage, mileage, and need for drivers amidst an industry-wide driver shortage. To complicate matters further, multiple stops were required along each route, thus increasing temperature risk during summer months for items near the rear of the load. A solution was needed that could simultaneously extend the life of Price Chopper's fleet, increase operational flexibility, and cut costs.

Solution

Mixing loads of frozen and perishable commodities was a viable alternative to Price Chopper's existing delivery model if—and only if—product quality was not compromised during the shipment.

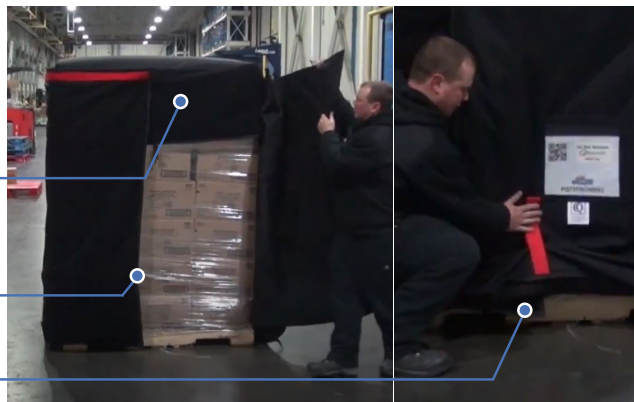
QProducts & Services engineered the Cap and Wrap PalletQuilt® for simple combo loading. It would hold the integrity of frozen items, like ice cream, shipped on a refrigerated trailer set at 36°F.

view video:
on.mjmc.com/CapNWrap

"Cap" of the Cap and Wrap is easily applied over palletized frozen tubs of ice cream.

"Wrap" of the Cap and Wrap is secured with heavy-duty, condensation-proof velcro.

Forklift straps create a safe opening for forklift driver.



Temperature:
Frozen



Industry:
Retail Grocery



Application:
Store distribution



Duration:
9 Hours



Challenge:
Combine frozen and perishables on same load without compromising product quality



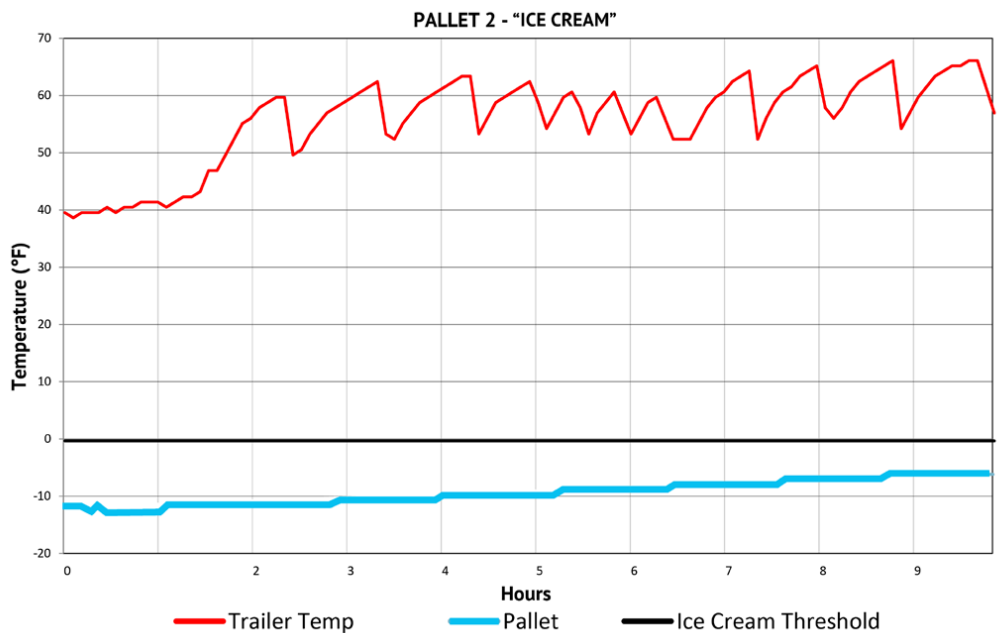
Solution:
Cap and Wrap PalletQuilt®

Results

After designing a customized pallet cover, QProducts' Technical Services Team executed a series of live temperature studies to meet performance requirements set forth by Price Chopper's Quality Assurance team.

The test contained five pallets equipped with temperature recording devices (TRDs), positioned in areas most susceptible to temperature excursions. TRDs logged product and ambient temperatures.

The shipment departed from Upstate New York at 5:30am and arrived in Derby, Vermont at 4:30pm. Temperature graphs showed that the Ice Cream products maintained sub-zero temperatures. It is expected that actual product temperatures would be even cooler, since the products were not probed.



“Over the past four years, we have grown the “All-on-One” program incrementally. We’ve extended the shelf life of our trailers by running them at 36°F instead of reefers at -20°F, which caused a lot of wear and tear. We’re averaging an annual reduction of more than 65,000 miles traveled, and that number is growing, so we’ve been able to better utilize our team of drivers and offset shortage concerns.

— Director of Transportation, Price Chopper