

Case Study

PalletQuilt® Protects Integrity of Craft Beer Shipment Through Extreme Summer Heat

Challenge

When it comes to craft beer, time and temperature play critical roles in maintaining product integrity during the transportation phase of the supply chain. As craft brewers seek to expand their presence beyond US borders, there exists a demand for a cost-effective means to successfully transport their precious cargo while maintaining the cold chain. Ancon Traders, in collaboration with Asgard Brewing Company and Lazy Magnolia Brewery, needed a way to move their beer into the hot and humid Central American market - without the high cost associated with refrigeration transportation.

Solution

Ancon Traders and company, put QProducts & Service's signature PalletQuilt to the test, moving three pallets of craft beer from the US to Central America, in lieu of a refrigerated ocean container. The QTeam responded with three PalletQuilt Kits, a recommended loading pattern, temperature monitors, testing protocol, and a check sheet to document each step. A mix of cases (cans) and kegs of beer were preconditioned at 42°F for three full days. The pallets were built and loaded per QProducts' direction. With the three protected pallets loaded and temperature data being recorded, the container doors closed for the next 16 days of transit.



Industry:
Beverage



Application:
Intermodal /
Ocean Container



Route:
Mississippi to
Panamá



Challenge:
Maintain cold
chain on dry
container
without costly
refrigeration.



Solution:
PalletQuilt
shields from
ambient heat
allowing for
gradual transfer
of temperature.

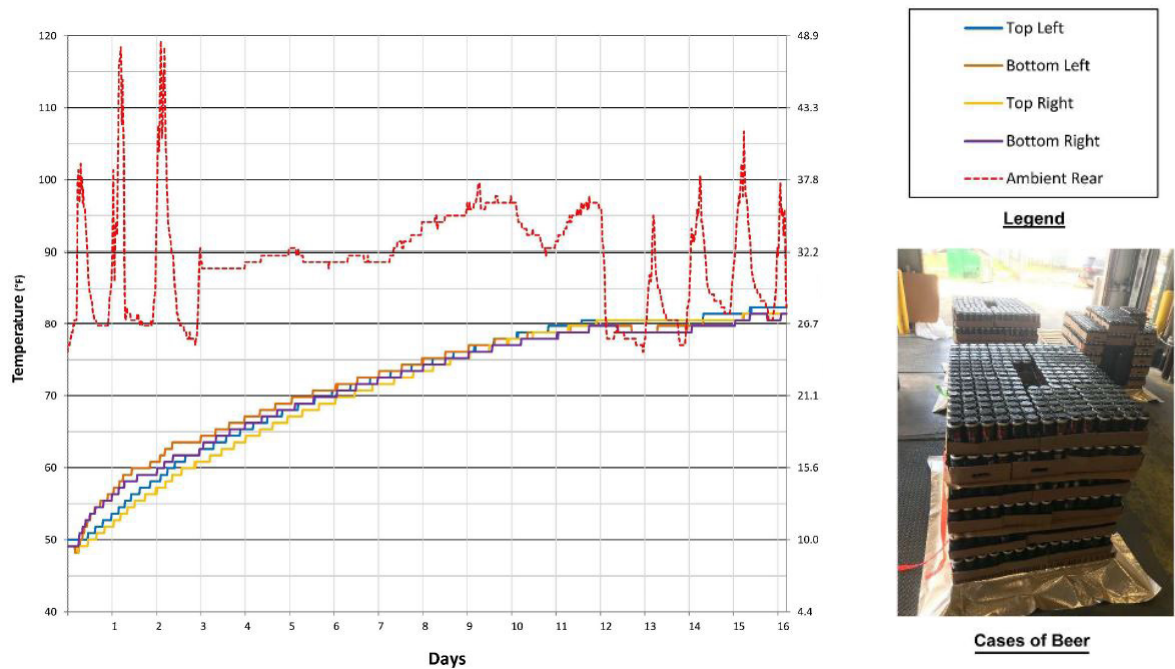


Results

Both canned and keg beer passed the taste tests performed at the destination. We learned that obtaining actual product temperature has some challenges. Air surrounding the product packaging results in slightly higher readings (Starting temp at 50°F versus 35 - 45°F).

Though ambient temperatures remained between 88 - 100°F inside of the container (above the quilts) for nearly 10 days the product temperature was between 80 - 84°F for no more than 4 days. Beer temps remained below 80°F for the majority of the transit. A gradual rise above 72°F (considered climate control temperature) occurred after day five, yet it remained within 10 degrees for the next five days.

Ambient temperatures reached 120°F within the first two days of transit, yet beer quality at destination point was achieved successfully, with product integrity intact.



“ I honestly didn't know what condition our beer would be in when we arrived in Panamá but was pleasantly surprised. When we tasted each beer it was in the exact condition as it was when we loaded on the pallets for shipment. I truly believe this could not have been achieved without a system of cold chain management. If you want your beer to be shipped and taste exactly like it does at your brewery upon arrival, the PalletQuilt cold chain solution is the way to go. ”

— Mike Peters, Taproom Manager, Asgard Craft Brewery, Inc.

“ Very fresh. ”

— Ryan Whitaker, Head Brewer