



AMBICOR CASE STUDY



Thermal Pallet Covers - maintaining the cold chain without refrigerated trucks

• THE CHALLENGE

For Ambicor, a stone fruit farmer in the Eastern Cape, one of the most critical operational challenges is **temperature control in transit**. As a supplier to Freshmark (Shoprite/Checkers) and Morning Crisp, it is imperative to get this right to protect revenue.

Keeping stone fruit temperatures between 0°C and 5°C **at the time of delivery** can be challenging, and lessons have been learned along the way. In the past, the fruit farmer lost five pallets of peaches due to non-compliant temperature issues, and there have been some other close calls. This led to Freshmark stipulating that future fruit deliveries should be delivered in **refrigerated trucks**, however this posed significant challenges for Ambicor. The farm is 4 ½ hours from the Freshmark distribution centre in Gqeberha, and the route

includes 1 ½ hours on gravel roads, mountain passes, and tight, winding sections. But, wanting to protect the contract and be compliant, Ambicor investigated a couple of **refrigerated transport options**.

Feedback from one operator was: “If you buy a refrigerated truck and do deliveries three to four times a week, taking into consideration the state of the gravel road, you will also need to **budget for a technician** to do ongoing repairs and maintenance on the truck's cooling unit.”

For a smaller producer, **this risk was prohibitive** from a cost and operational point of view. Ambicor had to go back to the drawing board to identify **alternative approaches to meet the cold-chain requirements**.

• THE SOLUTION

Ambicor contacted Power Plastics and trialed **Thermal Pallet Covers** as a **temperature control solution** for moving fruit on open trucks in hot and sunny conditions. The load test results were immediate and consistent, and Ambicor has not had any temperature-related rejections since.

Thermal Pallet Covers are now used for **all Ambicor's stone fruit deliveries**. Before transit, the insulating covers are stored overnight in the cold room at the same temperature as the fruit. They are then **fitted to the pallets** just before loading. Given that the covers are simple and easy to use, it takes **less than two minutes** for two people to prepare one pallet. Once delivered, the covers are reused.

• RESULTS & IMPACT

Since adopting Thermal Pallet Covers, **losses due to temperature fluctuation** are a thing of the past. After fruit is loaded at 0–1°C, the covers reliably maintain temperatures below 5°C for the full 4 ½ hr delivery timeline.

An added benefit for Ambicor has been the covers' ability to **protect goods from dust, rain and avoid damage** from items like cargo nets and tarpaulins.

As the manufacturer, Power Plastics takes quality and durability into account on every element of these covers. Ambicor's first set of Thermal Pallet Covers was purchased in 2020 and they are in use daily, with **each cover being used approximately 50 times** a year.

CUSTOMER FEEDBACK

*"Ambicor's feedback has been consistently positive. The fruit now has the **same shelf life and quality** as fruit delivered in refrigerated conditions. Looking ahead, for Ambicor, thermal pallet covers are the long-term solution. "We will continue using them as long as I am a stone fruit farmer!"*

Ambicor's thermal pallet covers in action, with over 50 uses per cover per year.



PRODUCT FEATURE: THERMAL PALLET JACKETS

• BENEFITS

Our thermally-insulated Thermal Pallet Jackets are an effective way to eliminate temperature fluctuations in the cold chain, eliminating large variations in temperature in logistics settings, minimising loss or spoiling of goods susceptible to temperature changes.

This multi-layer cover has a reflective barrier film. Heat is reflected inwards to either retain heat or keep it cool.

The middle insulation layer ensures that heat cannot be transferred in or out of the goods.

The robust outer layer protects goods and the pallet cover from external damage.

• USES

Typical applications include multi-load operations, cold store to retail outlet and intra-process stores, e.g. pharmaceutical operations, food manufacturing, retail outlets, wine industry, and cold chain logistics companies.

• DIMENSIONS

We are able to manufacture the jackets to the exact dimensions of the pallet.

MATERIALS AND SPECIFICATIONS

- Woven Polypropylene coated material, matt silver in colour, used to protect the insulating materials from scuffing.
- Isothermal Insulation: made of recycled polyester material, expanded into a blanket nominally 40mm thick.
- Foil coated film: a reflective foil which has within itself five layers. This foil provides the reflective insulation. The thin layer of aluminium foil is coated on both sides by a layer of polyethylene and bonded to the mat.
- Reflectivity (0.96 – 0.97) and low emissivity (0.04 – 0.031) – able to withstand temperatures between -30°C and 100°C.



Contact us today to learn more about our full range of industrial covers and liners.

11 HARRIS DRIVE, OTTERY,
CAPE TOWN, SOUTH AFRICA

TEL: +27 21 703 5880

COVERS@POWERPLASTICS.CO.ZA

WWW.CONTAINERLINERS.CO.ZA

