



Case Study

Future-Ready and NCC-Compliant: Insulating Queensland's Premier Cold Storage Facility

July 2025

Project Name

CityPort Cold Store Warehouses, Morningside

Products Used

Knauf Insulation Roof blanket

Building Type

Commercial

Application

Metal Roof

Builder

McNab

Roofing Contractor

Haggarty Roofing

Insulation Lamination Partner

Ecolife Solutions Pty Ltd.

Build on us.



Overview

The latest cold storage facility development in a Brisbane industrial area has utilised customised Knauf Insulation Roof blanket to deliver a thermal and acoustic envelope that is NCC compliant and ensures the health, safety, and longevity of wholesale seafood products.

What was the challenge?

Construction is underway on a new cold storage facility in the Eastern Suburbs of Brisbane, which will serve as a storage warehouse for a popular wholesale seafood supplier.

Due to the perishable produce that will be kept in the facility, ensuring a thermal envelope that meets the latest NCC requirements was essential for delivering a constant, controlled indoor air temperature. Similar importance was also placed on moisture resistance and condensation control, both crucial for preventing damage and maintaining product quality, as well as acoustic performance.



What was the solution?

To meet the requirements for numerous performance aspects, Knauf Insulation Roof blanket 55mm thickness product was selected. The standard roof blanket is supplied as an unfaced roll product. For this project, our specialist lamination partner, Ecolife Solutions, applied a specific foil facing to achieve Group 1 rating.

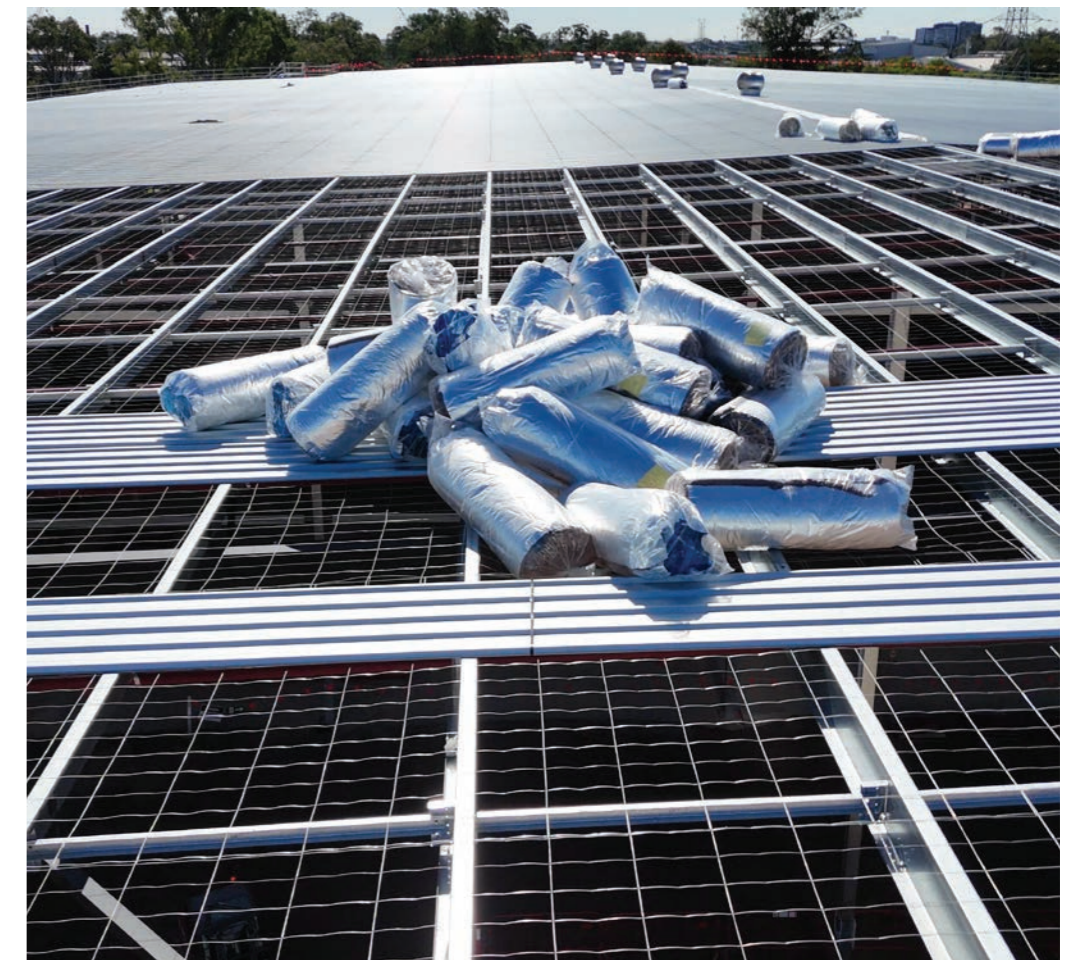
Manufactured at a roll length of 30m, and cut to 15m rolls during lamination, the Roof blanket is designed to simplify the installation process in large-scale commercial buildings. Approximately 20,000m² was installed on the roof of the cold storage facility, with the product rolled out over a wire mesh and the foil-facing side faced-down to achieve superior condensation control. In order to achieve further thermal performance and condensation control, the foil is designed 150mm wider than the insulation, providing an overlap between adjacent rolls and eliminating any gaps. This creates a vapour barrier that helps maintain the insulation's thermal performance, protects the

roof's structure, and improves indoor air quality.

The Knauf Insulation Roof blanket additionally delivers great sound absorption and acoustic performance, essential for limiting the acoustic impact of heavy rain and the transmission of external noise. This is key due to Brisbane's sub-tropical rainfall, the industrial location of the warehouse and proximity to the airport.

Knauf Insulation glasswool products are tested to be non-combustible in accordance with AS/NZS 4859.1. Additional fire testing was undertaken on the foil-facing added by the laminator to ensure compliance, prior to installation.

The installation of Knauf Insulation products will ensure improved energy efficiency for the entire facility once completed, while also delivering confidence to contractors and developers that the stringent performance requirements of the project are met when specifying our products.



About Knauf Insulation Roof blanket

Knauf Insulation Roof blanket (unfaced) provides thermal and acoustic insulation for commercial roofs.

Condensation control can be achieved when the product is faced with foil of the appropriate duty classification.

The Knauf Insulation Roof blanket (unfaced) range includes a selection of R-values to provide builders, designers and installers the opportunity to choose the best thermal performance for their project.

- > Convenient roll lengths for easy install
- > Sound absorbing
- > TwinTech® – smooth finish on both sides
- > High thermal performance – year round comfort
- > Non-combustible
- > Saves energy – lower energy bills
- > No added formaldehyde
- > Soft to handle and install
- > Odourless



ECOSE® Technology

A unique plant-based binder which contains no added formaldehyde or phenol. It is made from natural raw materials that are rapidly renewable and result in lower upfront carbon emissions compared to traditional formaldehyde-based binders. This makes our insulation soft to touch and easy to handle.



TwinTech® Technology

An advancement in insulation manufacture – the dual forming technique enables thicker products for evolving building code requirements and ensures there is a smooth finish on both sides of the insulation for optimal product handling and appearance.



Declare & Red List Free

Knauf Insulation's glasswool, free from Red List materials and certified for excellent air quality, features up to 80% recycled content and ECOSE® Technology, offering safer, eco-friendly building solutions.



For more information about Knauf Insulation's range of insulation products, visit:
www.knauf.com

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