



 THERMOHALL® Insulated Buildings

excellence in engineering



The THERMOHALL® membrane is highly resistant to tearing, stretching and movement under load — even in very harsh weather conditions.



## Innovative insulation system

Rubb's THERMOHALL® insulated cladding has been proven successful in locations exposed to extreme weather. THERMOHALL® was invented in Norway specifically to deal with harsh winter weather. The outer membrane of a THERMOHALL® building is manufactured using the same high-strength PVC-coated polyester material used on Rubb's uninsulated buildings. These materials have a self-cleaning exterior finish and feature coated weights ranging from 25 oz/yd<sup>2</sup> to 28 oz/yd<sup>2</sup> for most applications.

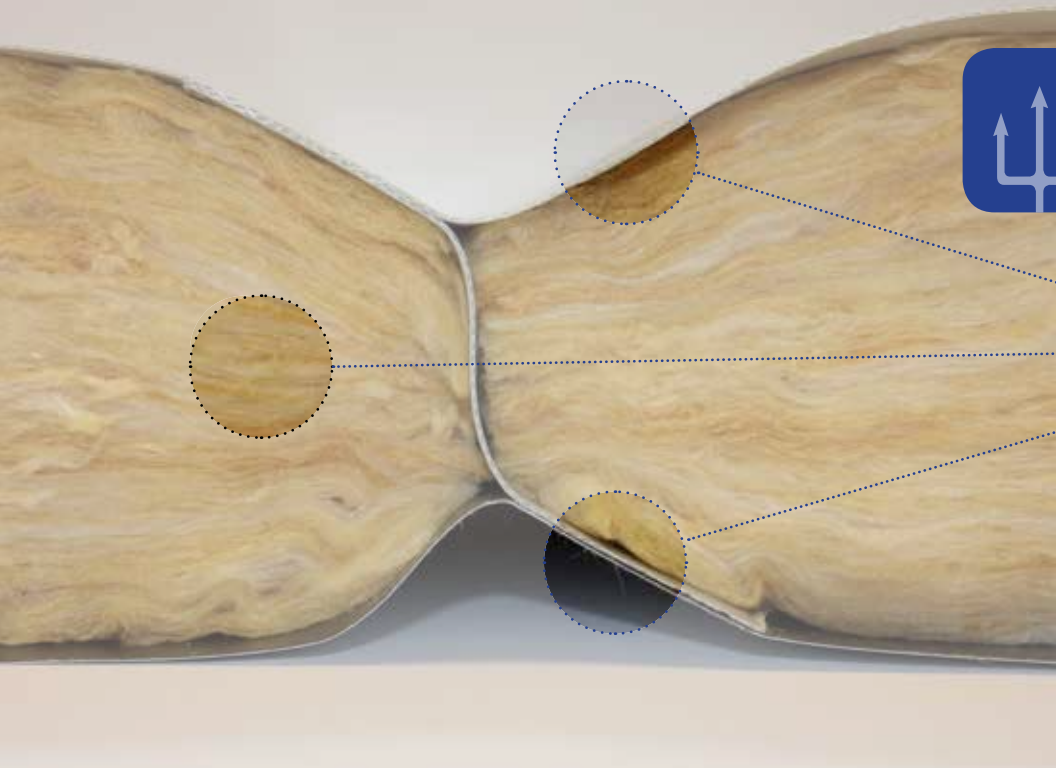
PVC battens are welded to the outer cladding panels at regular intervals and then to the inner fabric panels to create closed cells to hold environmentally friendly, recyclable insulation. The +/16 oz/yd<sup>2</sup> inner fabric is white with a self-cleaning coating on the inside face. Glass wool insulation sections are enclosed within the completed PVC-enclosed pocket, which is then finish sealed to prevent movement of insulation and moisture from entering.

The THERMOHALL® membrane is highly resistant to tearing, stretching and movement under load even in very harsh weather conditions. It is securely fastened to the outside of the galvanized building frame and virtually eliminates thermal bridging and air infiltration through the building envelope.

These features, together with our use of special high-density insulation, mean that THERMOHALL® typically outperforms other systems that have higher insulation thickness but lower overall effective thermal resistance.

## Benefits of THERMOHALL®

- System provides a full vapor seal, greatly reducing infiltration losses as compared to other insulation systems
- R-value flexibility: THERMOHALL® is available in different levels of insulation value, adaptable to customer needs and environmental conditions
- Minimal or no thermal bridging, thereby greatly reducing condensation and improving thermal efficiency
- The structural frame is exposed internally, allowing for more efficient installation and service of electrical and mechanical equipment
- Roof and interior surfaces are provided in high-gloss white to reduce solar load on the outside and increase reflectance within the building
- Factory pre-fabrication offers significant labor savings on site and greatly reduces installation time
- THERMOHALL® buildings are fully and easily relocatable. Vacuum packaging reduces shipment volumes



# THERMOHALL® Insulation System

**Outer Layer:** Flame-retardant, heavy-duty PVC fabric

**Core:** High-density, glass wool insulation

**Inner Layer:** Self-cleaning PVC fabric

## Calculated R-Values

Thickness	U-Value (SI) W/m <sup>2</sup> K	R-Value (US) ft <sup>2</sup> -°F-hr/BTU
2 in (50 mm)	0.67 W/m <sup>2</sup> K	R11
4 in (100 mm)	0.36 W/m <sup>2</sup> K	R19
6 in (150 mm)	0.25 W/m <sup>2</sup> K	R27
8 in (200 mm)	0.19 W/m <sup>2</sup> K	R35

Rubb's patented THERMOHALL® features a flexible, insulated fabric system that offers major advantages over other insulating systems:

- Non-combustible glass wool is encapsulated in air and water-tight pockets
- Insulation thickness from 2 inches (R-11) to 8 inches (R-35)
- No thermal bridges in the cladding, thus improving efficiency
- No air gaps in the cladding, which reduces heat loss and helps eliminate condensation
- Building and THERMOHALL® are fully relocatable
- Environmentally friendly, both in fabrication and operation
- Long, useful life (20+ years)

Rubb THERMOHALL® is a properly insulated building, which combines the best properties of both conventional buildings and fabric buildings, high thermal insulation, and fully relocatable. All THERMOHALL® buildings can be delivered to the customer's insulation requirements.



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# Newquay Airport

154 ft span x 164 ft long BVL



This hangar provides 25,000 sq ft of aircraft storage and maintenance space. The facility measures 154 ft wide x 164 ft long with 26 ft high sidewalls and an overall height of 60 ft. A door measuring 141 ft wide x 46 ft at its highest point provides access to the hangar. The facility is insulated to an R-value of 22.



“The speed and flexibility of Rubb’s hangar construction has enabled us to develop new space and respond quickly to a key customer’s requirements.”

“This has been critical in order for business to be undertaken in a competitive marketplace and puts NQY firmly on the MRO map with the capability to attract airlines to our facility.”

**Al Titterington | Managing Director**  
Newquay Cornwall Airport



# Ipswich Academy

66 ft span x 230 ft long BVC

The split-level 66 ft span x 230 ft long multi-sports complex boasts a 23 ft high x 108 ft long playing area based on a four-court badminton hall. The walls from the ground up feature 13 ft high, 4 in thick insulated steel cladding, providing an R-value of 27. Rubb's THERMOHALL® insulated cladding completes the upper walls and roof.



“The sports hall has surpassed our expectations; it was delivered on time and budget and, because of its innovative design, it is able to enhance the opportunities offered by Ipswich Academy.

I would recommend Rubb to anyone considering investing in new sports facilities.”

**Steve Hawley | Facilities Manager**  
Ipswich Academy

THERMOHALL® insulated fabric buildings, only available at Rubb Building Systems  
Best-in-class engineering combining warmth, efficiency and innovation.

Contact us for more information



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