

Donnelly Modular Home, WA

TR Homes, part of the Murray River North Group, is a Western Australian modular home builder specialising in transportable housing for regional and remote locations. Using prefabrication and off-site manufacturing, the company delivers modular homes designed to reduce the cost, time and logistical challenges associated with building in remote areas of WA.

The HIA Charitable Foundation selected TR Homes' Donnelly modular home design as a special edition project, with the sale proceeds donated to support health and wellbeing initiatives within the residential building industry.



Photograph courtesy of TR Homes

Requirements

The Donnelly modular home must meet National Construction Code (NCC) performance requirements while remaining suitable for prefabrication, transport and installation across varied regional conditions.

Key project requirements included bushfire compliance, with materials and detailing suitable for Bushfire Attack Levels BAL-19; NCC condensation management, ensuring effective moisture and vapour control within the building envelope in accordance with NCC provisions; lightweight clad to

steel-frame construction, where building components must address thermal mitigation for steel-frame construction; and climatic performance, with improved thermal performance for hot regional locations in WA.



Stephen Nicholls Photography

Approach

To address these requirements, multi-functional building membranes were specified for use within both roof and wall assemblies.

Ametalin Trade Select® membranes were selected for their suitability in lightweight modular steel-frame construction and their compliance with the NCC and bushfire performance requirements.

Trade Select® ThermalBreak® was incorporated into the roof system to provide thermal separation across the steel framing and enhance weather protection and climatic performance. For walls, Trade Select® VapourTech® Wall and Thermal Break strips provided thermal mitigation, vapour control, and NCC Condensation Management.

Installation details focused on maintaining the continuity of the building envelope and effective integration of thermal breaks into lightweight cladding systems typically used in modular construction.

Results

The project achieved several key outcomes. Firstly, through off-site manufacturing, TR Homes delivers high-quality modular homes designed to minimise cost, time, and logistical challenges faced when building in remote areas of WA.

Additionally, the Trade Select building membranes provided an all-in-one

solution that met all requirements, resulting in convenience: the home could be delivered anywhere within WA and be NCC2025 compliant.

Collectively, the HIA Charitable Foundation's completed project delivered a resilient, weather-resistant, energy-efficient and thermally comfortable outcome while meeting NCC performance and BAL requirements.



Photograph courtesy of TR Homes

Beyond the built outcome, the project was completed and sold with proceeds directed to the HIA Charitable Foundation. Funds raised support broader benefits for the building industry by supporting mental health initiatives and medical research into silicosis; contributing to organisations including Beyond Blue and the Tradie Health Institute, reinforcing the industry's commitment to wellbeing, safety and future-ready housing solutions; raising awareness of occupational health issues affecting construction workers and their families; and demonstrating how a compliant building envelope specification can support resilient housing in remote Australian regions.

Benefits

The project delivered a durable, weather-resistant and thermally comfortable modular home that meets NCC performance, BAL requirements and broader benefits for the building industry's future-ready housing solutions.

Client: HIA Charitable Foundation
Builder: Murray River North Group - TR Homes
Photography: Stephen Nicholls Photography & TR Homes