



AUSTRALIA'S ORIGINAL PURPOSE-BUILT GARAGE DOOR INSULATION

Product Data & Compliance Specification

Purpose-Built for Moving, Spring-Balanced Garage Doors

Garage doors are moving, spring-balanced systems. They rely on weight distribution, spring tension, panel articulation, and controlled air cavities working together safely.

ThermaDoor is engineered specifically to integrate with that system. It maintains door balance, preserves required air cavities, and delivers measurable thermal performance as installed.

Insulation performance is not just about material thickness. It is about how the entire door system performs over time.

- Designed exclusively for sectional and tilt garage doors
- Mechanically fixed installation method (no glues that degrade or restrict movement)
- Air cavity preserved for thermal performance
- Lightweight system design (approximately 7kg added to a standard double garage door)
- Spring balance checked during professional installation
- Engineered and manufactured for Australian climate conditions

Product Composition

ThermaDoor is a three-layer laminated system designed to provide thermal resistance, moisture protection, and a durable finish.

- **Core:** 35mm or 30mm flame-retardant Expanded Polystyrene (EPS) core.
- **Facing:** Laminated durable white vinyl face for long-term UV protection and easy cleaning.

- **Backing:** Laminated construction-grade Sisalation foil backing, acting as a Class 2 vapour barrier and reflecting radiant heat.

Installation Integrity and Tested Performance

Installation Integrity

- **Mechanical Fixing:** Panels are mechanically retained within the door frame. This allows the door to flex naturally and prevents the insulation from detaching under extreme heat, unlike glued alternatives.
- **Air Cavity Maintenance:** The mechanical fixing method maintains a critical air gap between the insulation panel and the outer steel door skin. This gap is essential for the system's thermal performance.
- **Compliance with AS/NZS 4505:** The lightweight design ensures that the door's weight and spring balance can be safely maintained or adjusted in accordance with AS/NZS 4505 (Garage doors and other large access doors).

Tested In-Door Performance (Assembly R-Values)

Under Australian Standards, insulation R-values used for building compliance must be calculated as system (assembly) values, not just raw material values. The entire garage door acts as a thermal bridge.

ThermaDoor has been independently tested to determine the thermal resistance of the **complete installed door assembly**.

R1.43 Winter

R1.39 Summer

*Calculated by a qualified thermal engineer in accordance with **AS/NZS 4859.1** and **AS/NZS 4859.2:2018**. Values reflect performance as installed within a standard sectional garage door system.*

Building Compliance & NatHERS Modelling

For builders, architects, and energy assessors, ThermaDoor provides the necessary independent engineering documentation to support NatHERS

modelling and National Construction Code (NCC) energy efficiency requirements.

Indicative NatHERS Modelling Results

Independent energy assessment modelling demonstrates the impact of ThermaDoor insulation on the thermal fabric of a dwelling. The following scenarios are based on a single-level dwelling (slab on ground) with an attached Class 10 garage facing west.

Scenario	Climate Zone	Without ThermaDoor	With ThermaDoor	Improvement
Unconditioned Garage (Not air conditioned)	Brisbane (CZ10)	6.8 Stars	7.2 Stars	+0.4 Stars
Unconditioned Garage (Not air conditioned)	Toowoomba (CZ50)	5.4 Stars	5.8 Stars	+0.4 Stars
Conditioned Garage (Air conditioned)	Brisbane (CZ10)	5.8 Stars	7.2 Stars	+1.4 Stars
Conditioned Garage (Air conditioned)	Toowoomba (CZ50)	4.9 Stars	5.9 Stars	+1.0 Stars

Note: Modelling was conducted using an R1.4 input value. The increase in Star Rating for compliance must be assessed and tested for each individual project based on specific orientation and design. Full modelling report available upon request.

ThermaDoor Garage Door Insulation | Proudly Australian Made & Owned (Licence 7177)

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