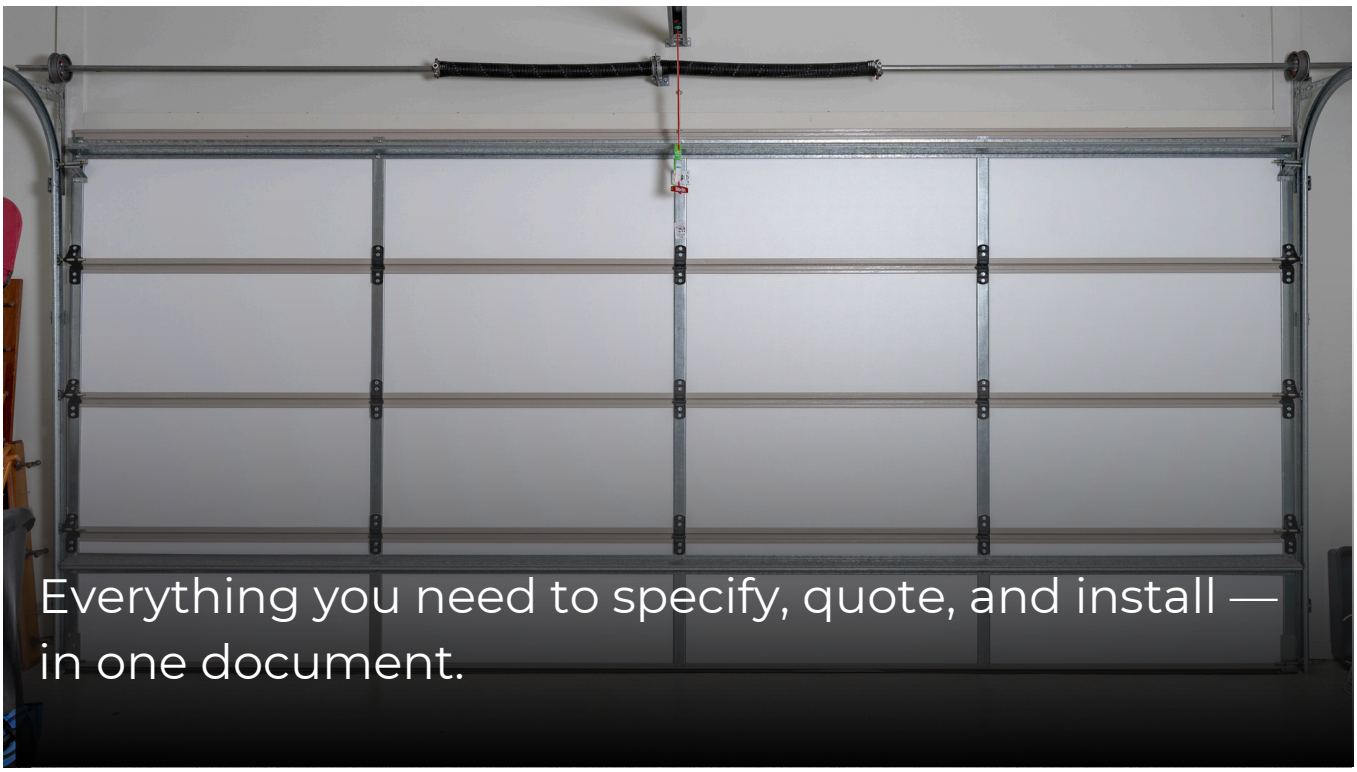
ThermaDoor®
Garage Door Insulation
Est. 2012

AUSTRALIAN MADE AND OWNED

One Click Spec Document

The specification-ready garage door insulation system for Australian professionals

For garage door companies, builders, building designers, and energy assessors.



Contents

01
About ThermaDoor

What it is

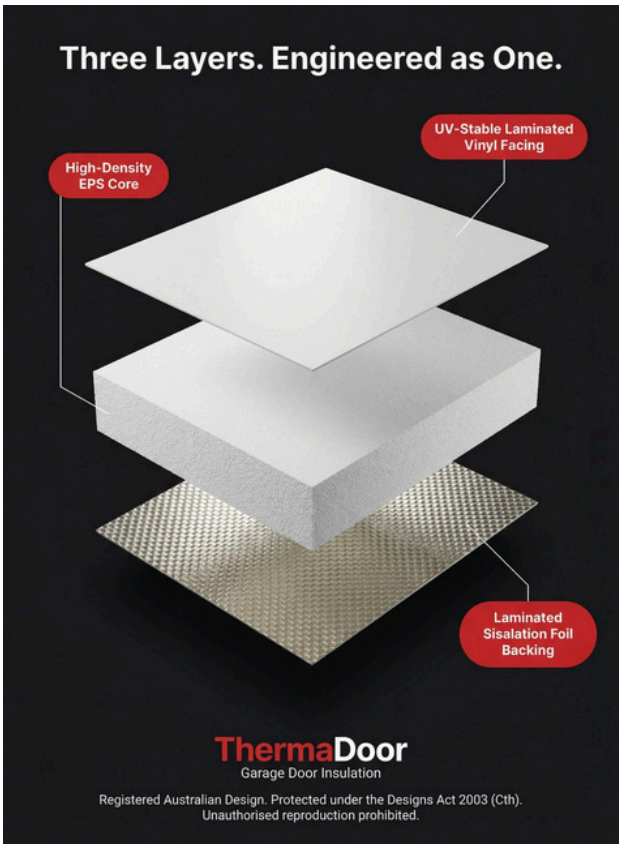
ThermaDoor is a purpose-built garage door insulation system. Each panel consists of three factory-laminated components: a 35mm M-Class EPS (Expanded Polystyrene) core, a construction-grade reflective sisalation foil backing (which acts as a Class 2 vapour barrier), and an impact-resilient, easy-clean vinyl laminate face. It is a complete composite panel — not repurposed wall insulation.

Who made it

Designed in 2012 by Peter Hinton, Licensed Builder (QBCC Lic 49645), with over 45 years of construction experience. Built specifically to withstand harsh Australian conditions while maintaining the integrity of the garage door.

Key features

- Purpose-built for garage doors.
- Factory laminated under controlled pressure and temperature — no glues used, ensuring consistent performance and dimensional stability for the life of the door.
- Mechanical fix system preserves the critical air cavity.
- Lightweight composition adds around 8kg to a standard 16 panel garage door.
- Designed to bend and flex with the garage door's natural movement.



02

Verified R-Values

R1.43 Winter Assembly | R1.39 Summer Assembly

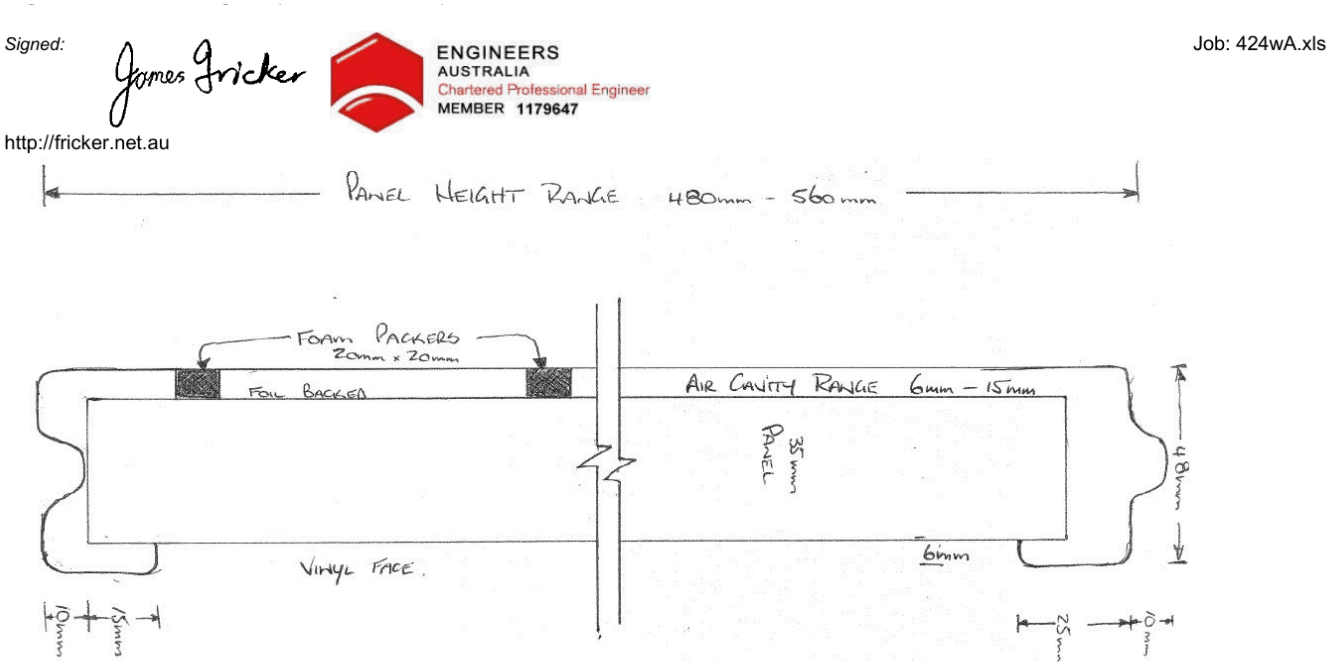
Total R-value, calculated to AS/NZS 4859 Parts 1 & 2:2018.

Who calculated them

Calculated by James M Fricker, F.AIRAH F.IEAust CPEng NER APEC Engineer IntPE(Aus), Registered Professional Engineer (Victoria PE0005355). AS/NZS 4859.2:2018 is a referenced document in the National Construction Code.

What total R-value means

AS/NZS 4859.2 defines Overall Total R as the total thermal resistance of a complete construction element, calculated across all thermal paths including surface film resistances. For a garage door, this accounts for heat transfer through the steel hardware (hinges, tracks, and brackets) as well as through the insulation panels. The result is always lower than the material R-value of the insulation alone. Any product claiming an installed R-value higher than its material R-value is not consistent with AS/NZS 4859.2.



03

NatHERS Star Rating Impact

Adding ThermaDoor to an attached Class 10 garage can help achieve NatHERS star ratings under the National Construction Code, especially when margins are tight. The modelling below was developed in consultation with an energy compliance consultant with over 30 years of industry experience. Results vary by climate zone, garage orientation, and whether the garage is conditioned or unconditioned. Scenarios are based on a single-level, slab-on-ground dwelling with a west-facing attached garage.

Climate Zone	Location	Garage Type	Without ThermaDoor	With ThermaDoor
CZ10	Brisbane	Unconditioned	6.8 stars	7.2 stars (+0.4)
CZ50	Toowoomba	Unconditioned	5.4 stars	5.8 stars (+0.4)
CZ10	Brisbane	Conditioned	5.8 stars	7.2 stars (+1.4)
CZ50	Toowoomba	Conditioned	4.9 stars	5.9 stars (+1.0)

Results based on a single-level, slab-on-ground dwelling with a west-facing attached Class 10 garage. Garage door R-value input: Bulk R = 1.4. Actual outcomes vary by project — energy assessor to confirm for each individual assessment.

> *"With over 30 years in the construction industry and as an energy compliance consultant, I have experienced firsthand how tested and verified ThermaDoor garage door insulation reduces heat transfer and improves thermal efficiency. For energy assessors modelling attached garages, specifying ThermaDoor on the plan files ensures it is recognised in the NatHERS star rating outcome".*
>
> — Energy Compliance Consultant, 30+ years industry experience

04
Standards Compliance & Compatibility

AS/NZS 4859.1:2018 & AS/NZS 4859.2:2018 — Thermal Insulation of Buildings

ThermaDoor R-values are calculated as Overall Total R by an independent registered professional engineer to AS/NZS 4859 Parts 1 & 2:2018. This standard is referenced in the National Construction Code, making ThermaDoor values directly applicable to energy compliance assessments.

Bulk Thermal Insulation — Installation Principles

While no Australian standard specifically covers garage door insulation, ThermaDoor's installation method aligns with the core principles of bulk thermal insulation installation:

- Mechanical fixing — no adhesives.
- Preservation of the critical air cavity between the panel and the door skin.
- No damage to the door structure or skin.
- Professional spring adjustment included to maintain safe door operation after installation.

NCC — Section J & NatHERS

ThermaDoor supports 7-star NatHERS optimisation under the National Construction Code. The verified R-values provide a compliant input for energy modelling of attached Class 10 garages using NatHERS-accredited software.

Independent Verification

Full engineering calculations, product data sheets, and supporting technical documentation are available on the ThermaDoor Trade Hub at **thermadoor.com.au/trade-hub**. For direct enquiries, contact Peter Hinton via the details on the final page.

05
Fast Facts & Contact

- R1.43 winter / R1.39 summer — verified Overall Total R-values.
- Calculated to AS/NZS 4859 Parts 1 & 2:2018 by an independent registered professional engineer.
- Aligned with the National Construction Code.
- Installation method aligns with the core principles of bulk thermal insulation installation.
- Mechanical fixing — no adhesives. Critical air cavity preserved.
- Three factory-laminated components: 35mm M-Class EPS core, construction-grade reflective sisalation foil backing (Class 2 vapour barrier), and impact-resilient vinyl laminate face. Australian Made.
- Suitable for sectional and tilt-style garage doors.
- When installed by ThermaDoor or authorised distributors includes professional spring adjustment
- Trusted by builders, designers, and energy assessors since 2012.

ThermaDoor Pty Ltd
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