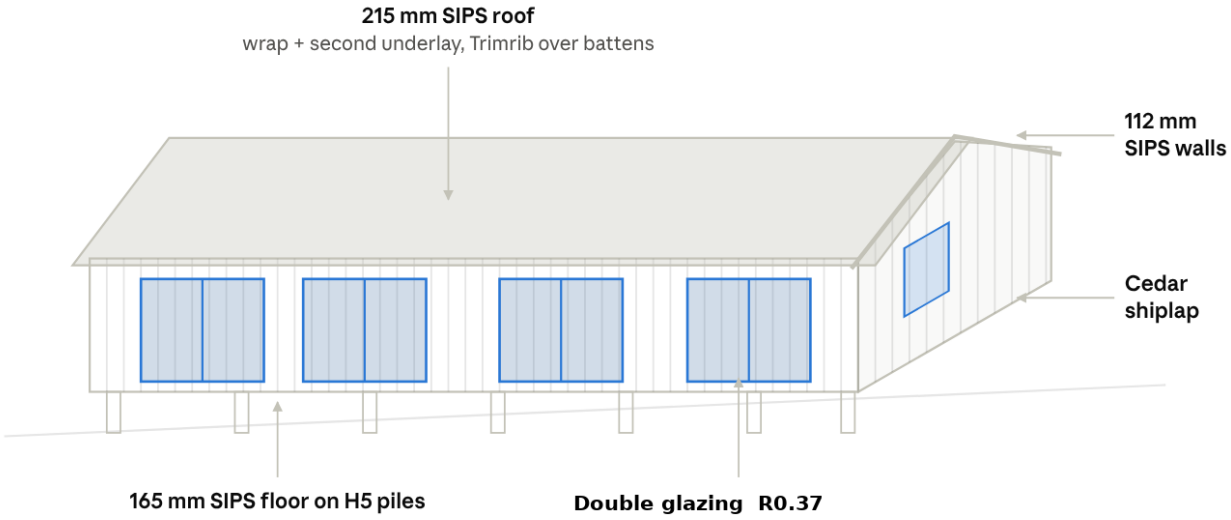
Buyer Overview

A smarter build. A better lifestyle.

I AM HOME INSULATED SIP FLOORS WALLS AND ROOF

Our highly insulated SIP homes are designed to retain natural warmth and reduce heating demand. Independent airtightness testing on an I AM HOME home supports the benefits of our sealed construction. This guide illustrates a representative home; layouts and specifications vary by property.



Comfort starts with the whole house

Structural insulated panels (SIPS) surround the living spaces. The floor, walls and roof work together to limit heat escaping through the building fabric. Every panel joint is foamed and glued, including the key floor-to-wall and wall-to-roof junctions. The home uses R0.37 double glazing. High insulation ratings across the SIP floor, walls and roof contribute to the overall thermal performance. The panels were installed by our own crew.

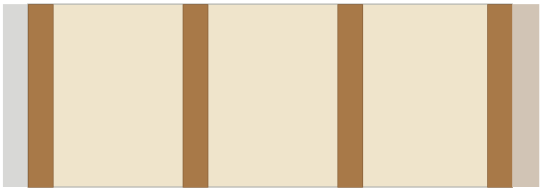
Cedar shiplap on a vented cavity and a Colorsteel Trimrib roof give the home a clean finish. Inside, raked SIP ceilings lift the living and bedroom spaces. The open-plan kitchen, dining and lounge connect to four bedrooms, an ensuite and walk-in wardrobe, a family bathroom and a separate WC.

R3.6 batts in central, master bedroom and bathroom walls help limit room-to-room noise. Flooring: 13 mm Pergo Harstena timber (2200 × 165 mm) laid as a floating floor over underlay, and Carpet Mill Valenciana 40 oz SDN carpet in Evolution on 12 mm, 140 kg underlay.

Why SIP walls work differently

CONVENTIONAL TIMBER WALL

insulation plane



Insulation sits between studs

Timber creates repeated paths through the layer

I AM HOME SIP WALL

insulation plane

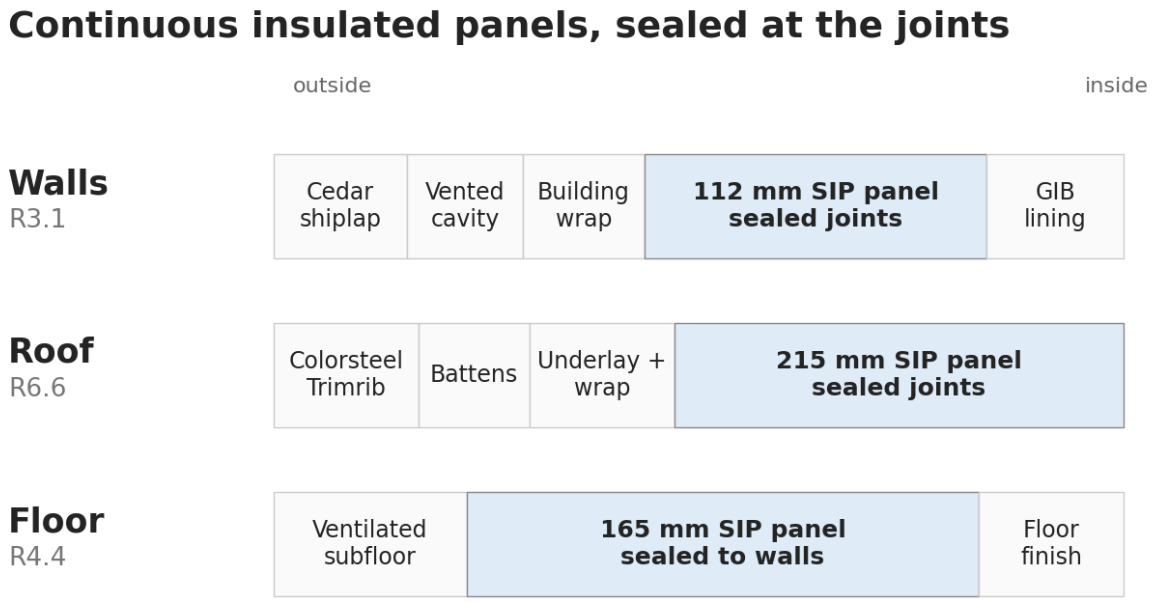


Structure and insulation in one panel

Every panel joint is foamed and glued

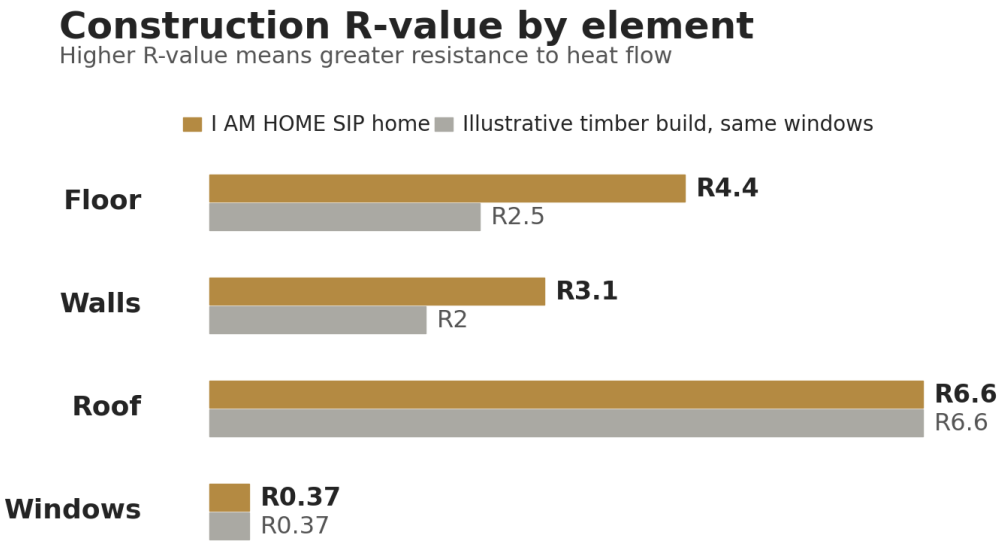
The difference is in the build

The same panel system runs through the floor, exterior walls and roof. Solid insulation is bonded between structural skins, so timber studs and rafters do not repeatedly interrupt the insulated layer. Every panel-to-panel joint is foamed and glued; roof-panel joints are also glued and battened on the inside.



The insulation story in one glance

Rod Yeoman of SIPs Direct gives panel R-values of R4.2 floor, R2.8 walls and R6.3 roof. His whole-construction values are R4.4 floor, R3.1 walls and R6.6 roof. The external SIP walls have GIB lining; no extra R-value beyond R3.1 is added here. The home has R0.37 double glazing.



Rod Yeoman construction values. The timber wall R2.0 is illustrative; roofs are both R6.6.

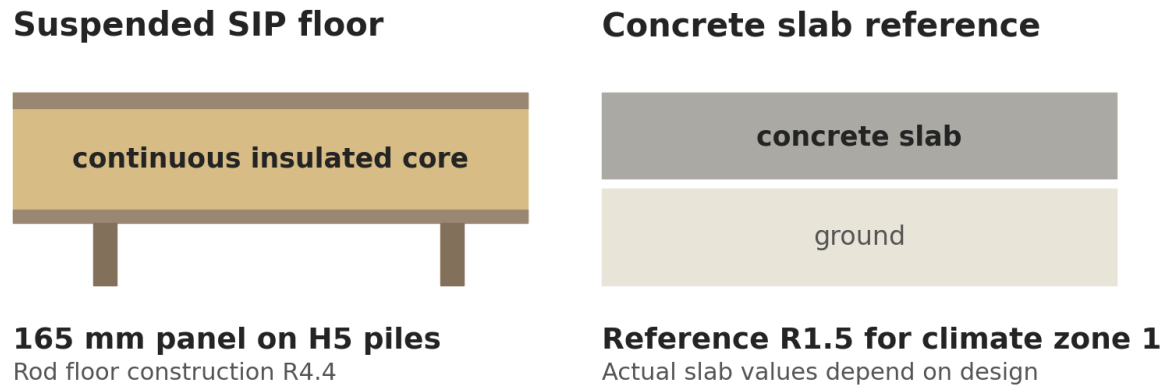
Against the illustrative R2.5 suspended floor and R2.0 timber wall, the SIP construction values are 76% and 55% higher respectively. The R6.6 SIP roof equals the H1 climate-zone-1 roof reference. The floor is also about 2.9 times the separate R1.5 slab reference. These are comparisons of thermal resistance, not measured energy savings.

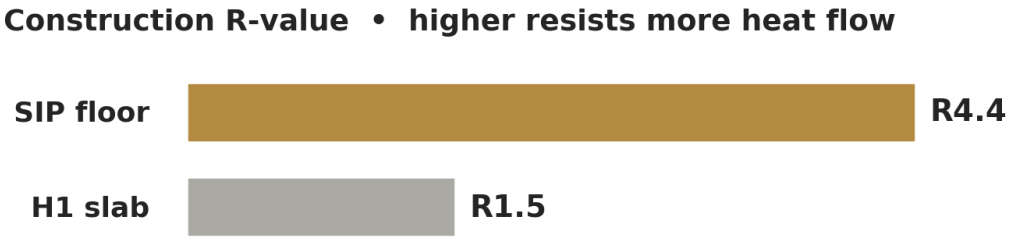
R6.6 batts between trusses do not necessarily give a whole-roof R6.6; framing bridges must be included in an assembly calculation. SIP panels also form a continuous wind barrier, although airtightness is separate from R-value.

Comparison basis Rounded areas come from the earlier H1 calculation. The illustrative timber build uses R2.5 suspended floor, R2.0 walls, R6.6 roof and the same R0.37 glazing and areas. It is not the formal H1 reference, which for climate zone 1 uses R1.6 walls and R0.46 glazing at 30% of gross wall area. Heat loss is area ÷ construction R-value, excluding air leakage. MBIE H1/AS1 sixth edition, Table 2.1.2.7.

SIP floor versus concrete slab

A 165 mm SIP floor on H5 piles insulates the home from the ventilated space below. Rod Yeoman gives the panel R4.2 and the complete floor construction R4.4. The H1 reference for a slab-on-ground floor in this climate zone is R1.5.





Slab R1.5 is an H1 comparison value, not a specification for every concrete floor.

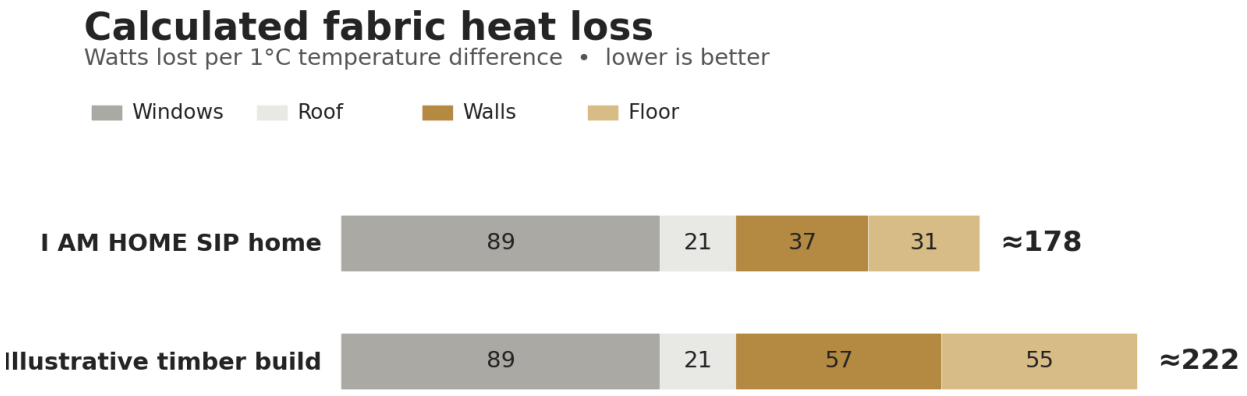
R4.4 SIP floor compared with R1.5 slab reference

The R4.4 SIP floor construction has about 2.9 times the thermal resistance of the R1.5 H1 slab-on-ground reference for climate zone 1. For the floor component alone, at equal area and temperature difference, area ÷ R implies about 66% less heat flow. This is an illustration, not a measured saving or a claim about every concrete slab.

The main comparison uses R2.5 for another type of floor, matching the suspended-floor category in H1. The separate slab graphic uses H1's R1.5 slab benchmark. A real slab can perform better or worse depending on its edge, underslab insulation and geometry.

Less heat to replace. More comfort to enjoy.

Using Rod Yeoman's whole-construction values and rounded areas from the earlier H1 calculation, this home has approximately 178 W/°C of illustrated fabric heat loss, versus 222 W/°C for the like-for-like timber example. That is about 20% less calculated fabric heat loss. Both use the same glazing and areas.



Using Rod Yeoman construction R-values; air leakage excluded. Illustrative fabric values.

What that means at home

On a 5°C night with the interior at 20°C, the fabric-only illustration gives about 2.7 kW of heat loss, compared with 3.3 kW for the timber example. This calculation excludes air leakage. The independently measured airtightness result is explained below. A 6.2 kW heat pump provides the main heating.

Airtightness and fresh air on your terms

An I AM HOME home tested at 1.69 ACH50. The conventional-build benchmark is higher at 6–7 ACH50, meaning more air leakage. Our tested home therefore achieved 72–76% less air leakage. Carefully sealed panel joints help keep warmth inside, reduce draughts and lower the heating needed to stay comfortable. Devlin Property carried out the test on 23 October 2026.

The home was designed to G4/AS1 ventilation provisions. Double window latches allow a secure, partly open position for controlled fresh air; mechanical extraction serves the kitchen, bathroom and ensuite.

A 2.7 m ceiling planned for future ventilation

The corridor’s 2.7 m dropped ceiling runs through to the walk-in wardrobe, leaving a void for future passive ventilation or ducting. The additional system is not yet installed.



Provision only • passive ventilation system not installed

Built with tomorrow in mind

The SIP designer confirms the roof panels have capacity for future solar panels, subject to the array and fixing design. Through-wall heat recovery units can also be added later; neither system is included. The developer considered the installed ventilation suitable for the local climate.

Locked together as one structural shell

The approved roof plan expressly identifies the SIP roof panels as the roof bracing. Panel splines and specified fasteners join the roof, wall and floor elements; the consented details show their connections through bearers to the piles. Structural performance depends on the specified connections and anchorage.

More warmth stays inside

72–76% less air leakage

An independently tested I AM HOME home achieved 1.69 ACH50. The conventional-build benchmark is higher at 6–7 ACH50, meaning more air leakage. That gives our tested home 72–76% less leakage. Our sealed SIP construction helps keep the warmth you have paid for inside, with fewer draughts and less heat escaping through gaps.

Free warmth from the sun

Sunlight entering through the windows naturally warms your living spaces. The insulated SIP floor, walls and roof work with the airtight building envelope to help hold that warmth for longer. On sunny days, little or no extra heating may be needed.

Less heating and lower running costs

Keeping more warmth inside means less heat to replace. That reduces the heating needed to maintain a comfortable temperature and can lower electricity used for heating across the year. Your heat pump can top up the warmth when needed, while the building itself helps maintain comfort.

Comfort built into the whole home

I AM HOME measured air leakage	1.69 ACH50
Conventional-build benchmark leakage	6–7 ACH50 — higher leakage
I AM HOME advantage	72–76% less air leakage
Insulated SIP construction	Floor, exterior walls and roof
Natural solar warmth	Sunlight helps warm the home for free
Benefit for your household	Less heating needed to maintain comfort

Warmth and comfort for healthier living

A home that is easier to keep warm supports a more comfortable living environment. Insulated SIP construction helps keep internal surfaces warmer. Used with effective fresh-air ventilation and kitchen and bathroom extraction, it can help manage moisture and reduce conditions that encourage condensation and mould. Together, these features support warmer, drier and healthier living, with less heating needed to maintain comfort.

Test basis: Devlin Property, an I AM HOME SIP home, 23 October 2026, ISO 9972 multi-point depressurisation. The 72–76% reduction is calculated from 1.69 ACH50 against a 6–7 ACH50 benchmark; it describes tested air leakage, not a percentage reduction in electricity bills. Actual heating savings vary with weather, sunlight, ventilation and household use. Annual energy savings have not been measured. Fresh-air ventilation remains necessary.