H1. Done.

WE'VE GOT YOUR INSULATION SOLUTIONS COVERED.

The new insulation changes for small and large buildings might seem daunting, but at Comfortech® we've got all your H1 solutions sorted.

MBIE has made changes to roof, window, wall and underfloor insulation requirements and issuing a new edition of H1/AS1 and H1/VM1 for small buildings.

*AS1/VM1 must be applied to all small buildings **and** to housing of **any** size. AS2/VM2 must be applied to all large buildings.*

The new R-values aim to reduce the energy needed for heating residential homes by approximately 40% over minimum previous status quo requirements.

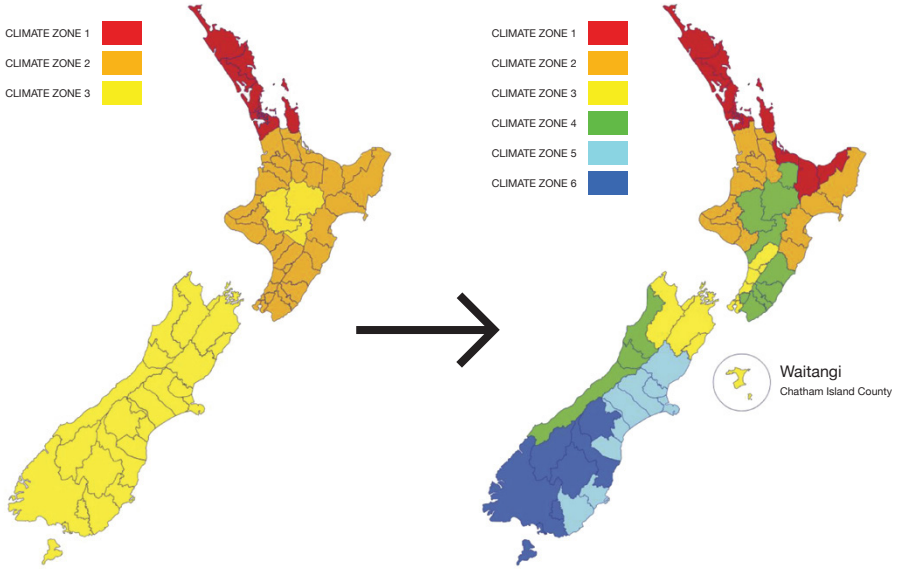
MBIE has also proceeded with changes to roof, window, wall and underfloor insulation requirements and issuing the new H1/AS2 and H1/VM2 for large buildings.

This aims to reduce the energy needed for heating and cooling 23% on average across new large buildings over previous minimum status quo requirements.

Our team at Comfortech® has designed solutions in partnership with the building industry that are flexible enough to cover a range of different building requirements.

Changes to climate zones

Previously New Zealand was divided into three climate zones. To better reflect regional climate differences those zones have now changed to six.



Construction R-values for all residential and small buildings (under 300m²)

There have been significant changes to construction R-values for houses and small buildings (under 300m²) with significant increases in ceiling R-values across the country.

Floors have now been broken out into concrete and raised timber floors, whilst walls have not changed significantly yet.

BUILDING ELEMENT	CLIMATE ZONE					
	1	2	3	4	5	6
ROOF	R6.6 (from 2.9 or 3.2)					
WINDOWS*	R0.37 (from R0.26)		R0.46		R0.50	
WALL	R2.0 (from R1.9)					
SLAB-ON-GROUND FLOORS	R1.5			R1.5	R1.6	R1.7
OTHER FLOORS	R2.5 (from R1.3)			R2.8	R3.0	

*The R-values for windows are being phased in, in stages, to the final values stated in the table above.

COMFORTECH®
BUILDING PERFORMANCE SOLUTIONS

A more comfortable tomorrow with our new Pink® Superbatts® range of H1 solutions.

At Comfortech® our ambition is to create a more sustainable and comfortable future by enabling all Kiwis to live and work in warmer, healthier and more energy-efficient buildings.

We're meeting this commitment with our new Pink® Superbatts® range which have been designed specifically to meet the new H1 building code changes for insulation.

To find out more about our vision for better performing New Zealand homes, visit our H1 Hub at comfortech.co.nz

Our Pink® Superbatts® are at least 25mm wider than our standard Pink®Batts® ceiling range

H1 Ceiling Solutions	Product Code	Size (mm)	Nominal Stabilised Thickness (mm)	Nominal Total Area Per Bale (m^2)	Approx. Coverage Per Bale (m^2)	BRANZ Appraisal Number
*R2.6 Pink® Batts®	7160266	1220 x 432	110	9.5	10.0	238
*R3.0 Pink® Batts®	7160265	1220 x 432	160	8.4	8.9	238
R4.5 Pink® Superbatts®	7113145	1220 x 460	210	5.6	5.5	238
R5.0 Pink® Superbatts®	7113150	1220 x 460	225	4.5	4.4	238
R6.0 Pink® Superbatts®	7113160	1220 x 460	245	3.9	3.8	238
R7.0 Pink® Superbatts®	7113170	1220 x 460	275	3.4	3.3	238

*First layer of a double layer solution

H1 Skillion Solutions	Product Code	Size (mm)	Nominal Stabilised Thickness (mm)	Nominal Total Area Per Bale (m^2)	Approx. Coverage Per Bale (m^2)	BRANZ Appraisal Number
R1.0 Pink® Superbatts®	7113210	1220 x 580	40 max	17.0	17.6	767
R5.0 Pink® Superbatts®	7113250	1220 x 560	180 max	4.1	4.4	767
R6.0 Pink® Superbatts®	7113260	1220 x 560	230 max	4.1	4.4	767
R7.4 Pink® Superbatts®	7113274	1220 x 560	275 max	3.4	3.7	767

H1 Wall Solutions	Product Code	Size (mm)	Nominal Stabilised Thickness (mm)	Nominal Total Area Per Bale (m^2)	Approx. Coverage Per Bale (m^2)	BRANZ Appraisal Number
R2.6 Pink® Batts® Ultra® - Wall	7127126	1140 x 560	90	9.6	11.3	238
R2.6 Pink® Batts® Ultra® - Narrow Wall	7160244	1140 x 360	90	7.4	9.2	238
R2.8 Pink® Batts® Ultra® - Wall	7127128	1140 x 560	90	6.4	7.5	238
R2.8 Pink® Batts® Ultra® - Narrow Wall	7160247	1140 x 360	90	4.5	5.6	238
R3.2 Pink® Batts® Ultra® - Wall	7127132	1140 x 560	140	9.6	11.3	238
R3.2 Pink® Batts® Ultra® - Narrow Wall	7160245	1140 x 360	140	7	8.6	238
R3.6 Pink® Batts® Ultra® - Wall	7127136	1140 x 560	140	7	8.3	238
R4.0 Pink® Batts® Ultra® - Wall	7127140	1140 x 560	140	5.1	6	238
R4.0 Pink® Batts® Ultra® - Narrow Wall	7160246	1140 x 360	140	4.1	5	238
R4.3 Pink® Batts® Ultra® - Wall	7127143	1140 x 560	140	3.2	3.8	238

Pink® Batts® Underfloor Solutions	Product Code	Size (mm)	Nominal Stabilised Thickness (mm)	Nominal Total Area Per Bale (m^2)	Approx. Coverage Per Bale (m^2)	BRANZ Appraisal Number
R3.2 Pink® Batts® Snugfloor® Narrow	7131451	1220 x 480	110	8.8	8.2	632
R3.2 Pink® Batts® Snugfloor® Wide	7131601	1220 x 580	110	10.6	10.6	632
R3.2 Pink® Batts® Snugfloor® Narrow	7134832	1220 x 480	140	8.2	7.7	632
R3.2 Pink® Batts® Snugfloor® Wide	7135832	1220 x 580	140	8.5	8.5	632

pink® superbatts®

COMFORTECH®
BUILDING PERFORMANCE SOLUTIONS

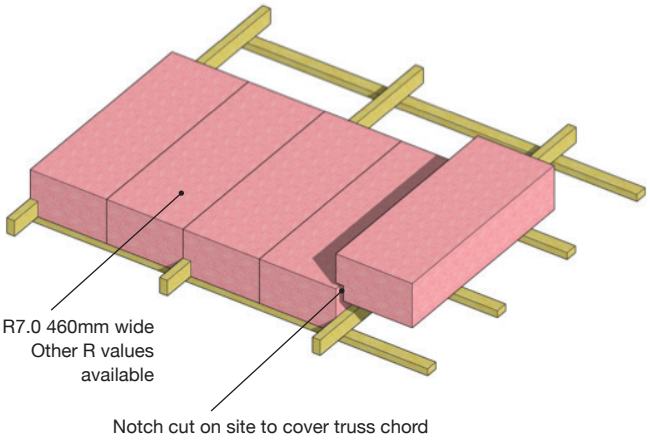
Single Layer Solution

Comfortech® have developed a single layer Pink® Superbatts® R7.0 solution, at a new width of 460mm, segments can be notched and fitted between the truss chord to seal the thermal bridge.

For compliance using the:

- **Schedule method**
  Use Pink® Superbatts® R7.0
- **Calculation and Modelling methods**
  May determine a lower R-value is required. Comfortech® has a range of other R-values including Pink® Superbatts® R4.5, R5.0, R6.0 which will all be at the new width of 460mm

Single Layer solution

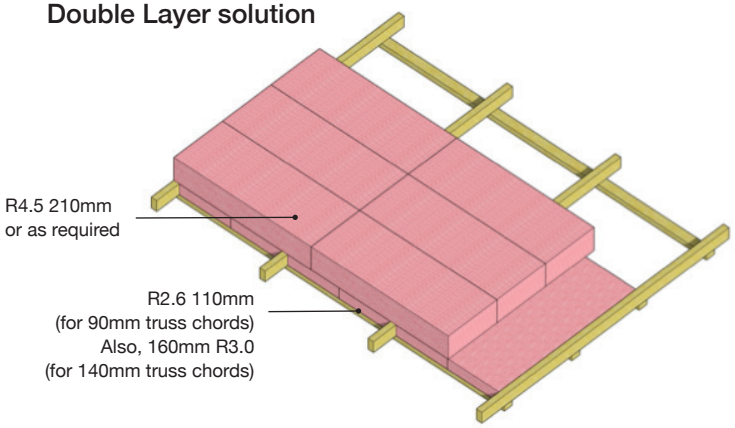


Double Layer Solution

The Comfortech® two layer solution uses a:

- First layer of Pink® Batts® insulation that is the combined height of the truss chord and the gap to the top of the ceiling batten. This layer would be either 110mm for a 90mm truss chord, or 160mm for a 140mm truss chord.
- Second layer of over-width (460mm wide) Pink® Superbatts® insulation. When the two layers are installed, the thermal bridge is completely closed, and the insulation performs as modelled

Double Layer solution



Insulation Guard for both solutions

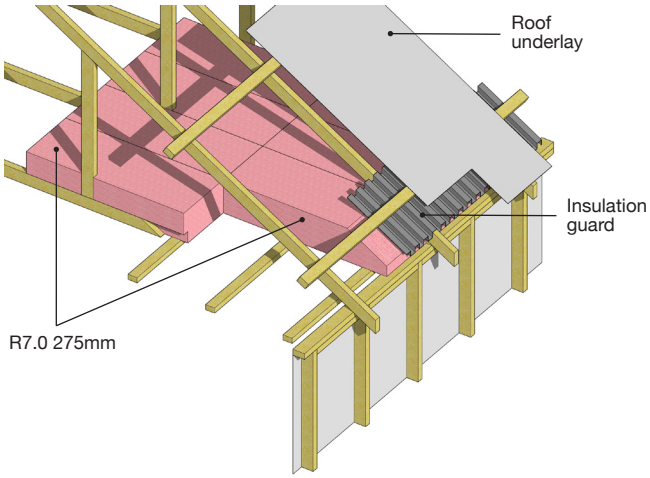
As roof insulation increases in thickness to meet the new building code, there is a greater differential in the surface temperature of the ceiling versus that of the top of the insulation. Warm air can escape the warm interior through leakage and entering the roof cavity will likely condense; creating condensation.

Under the new H1, the last 500mm of the perimeter of the roof insulation can be reduced to R3.3; this allows the insulation to carried out over the top plates of the wall, while reducing the barrier to air flow from the eave edges.

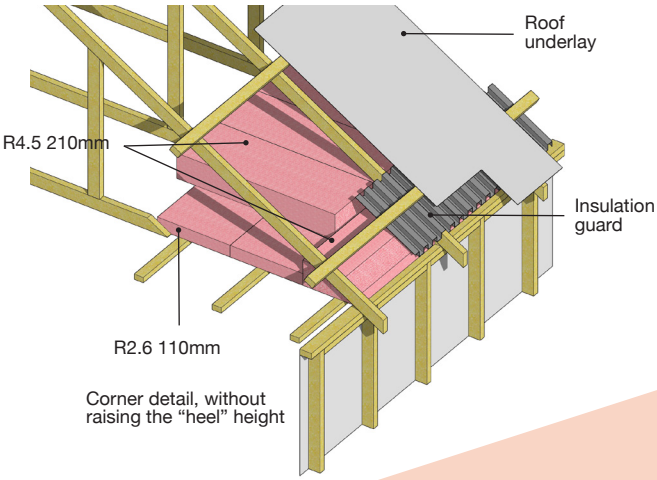
There is still a high risk of the insulation touching the underside of the roof underlay, preventing ventilation of the roof space and creating a condensation and mould risk. We recommend the installation of a insulation guard over the trusses, under the underlay, to maintain this critical ventilation pathway. Rather than the expense of a Raised Heel Truss, Comfortech® have solutions that can avoid unnecessary extra cost.

Note: It is important to note that the insulation guard needs to be installed before the roof goes on, not at the same time as the insulation installation

Single Layer solution with guard



Double Layer solution with guard



COMFORTECH®
BUILDING PERFORMANCE SOLUTIONS

H1. Done.

WE'VE GOT YOUR INSULATION SOLUTIONS COVERED.

To find out more about our vision for better performing New Zealand homes, visit our H1 hub.
https://www.comfortech.co.nz/h1-hub/

COMFORTECH®
BUILDING PERFORMANCE SOLUTIONS