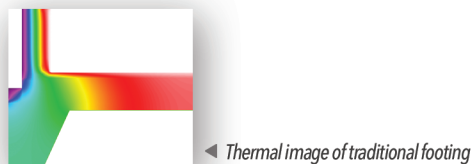
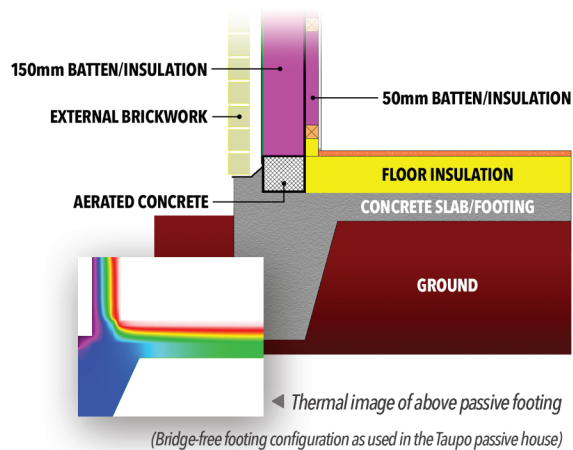


4. Thermal bridge-free construction



5. Super-insulated structure



U-Value: 0.199 W/(m²K)
R Value: 5.0



U-Value: 0.126 W/(m²K)
R Value: 7.9

Wall insulation
U-Value: 0.213 W/(m²K)
R Value: 4.7

What is required to gain passive certification?

Passive House Institute

The Passive House Institute outlines strict criteria which must be met to obtain certification.

These include:

Detailed drawings and technical data must be submitted at the design and build stage.

Pressure tests and onsite checks must be carried out to confirm quality of construction and adherence to criteria.

All passive houses are Building Act and Local Authority compliant and certified.

Passive House Verification			
Building	Two story residential house		
Location and Climate	Taupo New Zealand		
Street	18 Pukeko Way		
Postcode/City	3331 Taupo		
Country	New Zealand		
Building Type	Two story residential house		
Home Owner(s) / Client(s)	Leanne & Kim Feldborg		
Street	Pukeko Way		
Architect	Kim Feldborg		
Postcode/City	Taupo		
Mechanical System	Schönder		
Year of Construction	2012		
Number of Dwelling Units	1		
Enclosed Volume V _{int}	7.4 m ³		
Number of Occupants	7.4		
Interior Temperature	20.0 °C		
Internal Heat Gains	2.1 W/m ²		
Specific Demands with Reference to the Treated Floor Area			
Treated Floor Area	251.4 m ²		
Applied:	Annual method		
Specific Space Heating Demand:	6 kWh/(m ² a)	15 kWh/(m ² a)	Fulfilled?
Heating Load:	4 W/m ²	10 W/m ²	Yes
Pressurization Test Result:	n ³	0.6 n ³	
Specific Primary Energy Demand (incl. heating, cooling, auxiliary and renewable electricity):	kWh/(m ² a)	120 kWh/(m ² a)	
Specific Primary Energy Reduction through Solar Electricity:	kWh/(m ² a)		
Frequency of Overheating:	60 %	over 25 °C	
Specific Useful Cooling Energy Demand:	kWh/(m ² a)	15 kWh/(m ² a)	
Cooling Load:	12 W/m ²		
<p>We confirm that the values given herein have been determined following the PHPP methodology and based on the characteristic values of the building. The calculations with PHPP are attached to this application.</p> <p>Issued on: 2/10/2014 signed: Kim Feldborg</p>			

APPROVED



Welcome to our Passive House

The strategy of a passive house is to re-use "free" heat to heat the home. "Free" heat is defined as heat given off by sources such as appliances, lighting, cooking, body heat etc.



Designed & built by
Kim Feldborg (Valhalla Living Ltd.) Taupo, New Zealand

For further information, please call me any time.

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