

Structural Insulated Panels



- Homestar Summary Sheet -

Author

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Circular Economy Model Office	V 1.1	Not applicable				
	V3.0	Not yet assessed				
NABERS N2	NABERSNZ	Not yet assessed				
YPessivhaus Institut	Passivhaus	Not yet assessed				
NETZERO A PROVINE ON A PROVINE ON	Net Zero NZ	\checkmark				

Client	
Formance	

Product Name

The Formance SIP wall system

Product Description

The Formance SIP wall system are high performance thermally efficient composite panels which consist of a sandwich of two layers of structural board with an insulating layer of foam in between for walls, roofs and floors in new residential and commercial buildings.



Manner in which the product may contribute towards points				
Products must meet specific criteria (e.g. Paint VOC emissions, carpets, etc)				
Products may help achieve points by their very nature, if they are specified and installed (e.g. bicycle racks)	•			
Products may help achieve an outcome but they must be used in a specific manner (e.g. lighting control and zoning systems) OR The nominated product can contribute towards the outcome but many other products or factor influence that same outcome (E.g. Potable Water Calculator)	o			

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Tool	Credit category	Points available	Requirements	Contribution symbol	Contribution Potential	Details of compliance
Homestar V2+V3	EHC - 6	15	This credit rewards the reduction of consumed energy associated with space heating of the house, through good passive solar design and insulation.	o	Contribution Potential	The Formance SIP wall system wall panels reduce the amount of energy consumed associated with space heating, through good insulation and may help pass mandatory minimum requirements to achieve 7 star rating or above in Homestar.
	EHC - 7	4.5	This credit rewards the reduction of moisture levels and improved indoor environment for occupants.	o	Contribution Potential	The nominated product provides a good thermal performance for walls and passes the mandatory minimum wall R-value of R1.5. Assuming the floors and ceilings are also insulated to at least this level will award 0.5 points under the "minimizing condensation" category. The remaining points for EHC 7 are related to drainage and ventilation options. Please refer to the Technical Manual
Homestar V4	EHC-1	20	This credit rewards the reduction of purchased energy associated with space heating and cooling of the house, through good design of the thermal envelope.	o	Contribution potential	The Formance SIP wall system can contribute towards points in this credit using the Schedule method, based on the panels R values. This ranges from R2.1 90mm to R3.2 140mm depending on the climate zone. Thicker panels with R values going up to R 8.3 are available.
	EHC-4 (total 5 points)	3	(1) Minimising Thermal Bridges This credit rewards reduced condensation on or within building components, of which sub-category (1) awards points for constructions that reduce low surface temperatures.	~	1 point (out of 1 available for walls)	The Formance SIP wall system uses timber connectors between panels, with no steel thermal bridging, thus satisfying the credit criteria. <u>*Note:</u> in the event the design includes long spans that require structural steel beams or lintels, these will need to include a layer of XPS/EPS to achieve the R values stated in the Homestar Technical Manual and will need to be evaluated on a case by case basis.
		2	(2) Minimising condensation This credit rewards reduced condensation on or within building components, of which sub-category (2) awards points for constructions that include a continuous air and vapour control layer, and air leakage testing is undertaken during construction.	O	Contribution Potential	The Formance SIP wall system ensures: -Internal moisture is prevented from entering the structure by sealing inside of the panels with either tape or silicone (depending on the surface finish desired inside), and -Any external moisture that beats the weather-tight system (cladding) is allowed to escape by leaving the outside of the panels unsealed (so no taping or self-adhesive wraps).
Passivhaus	-	-		N/A	N/A	This product is not applicable to the scope of this rating system
Net Zero Energy Building	-	-	Achieving Net Zero energy requires a building with low heating and cooling loads to facilitate average annual electrical generation to meet the energy demand. This starts with a highly insulated and efficient thermal envelope.	o	Contribution potential	The nominated product can help achieve high R values for walls with no thermal bridging and is well suited to Net Zero Energy projects.