All Purpose (AP) Framing Board (PIR)

Thermacon Insulation Pty Ltd
16 Hodgson Way, Kewdale WA 6105

All Purpose Framing Board

AP Framing Board is composed of a high performance closed cell Polyisocyanurate (PIR) foam core bonded on each side to a foil faced. One side is a printed reflective facer and the other side is a white non-reflective foil facer. The reflective low emissivity surface greatly improves the thermal resistance of the adjacent cavity.
AP Framing Board is a lightweight highly effective continuous thermal barrier with a low thermal conductivity of 0.022w/mk.
AP Framing Board also functions as a water resistive barrier, vapour barrier and air barrier.
AP Framing Board is manufactured with a non HCFC blowing agent resulting in zero ozone depletion potential (ODP).

USE

AP Framing Board is designed for easy lightweight installation where High Thermal efficiency is required.
AP Framing Board is an excellent thermal, water resistive vapour barrier for interior construction and retrofit.
Applications include double brick cavity, block/concrete, continuous thermal insulation installed over metal/timber framing, underfloor applications and unexposed ceiling applications.

Product Information

Product Thickness mm	25, 27, 31, 42, 55, 66, 77, 88, 99	
Board Size – Length mm	2286	
Board Size – Width mm	1219	
Emittance (Foil Face)	E0.04	
'R' Value	25mm	R1.14
	27mm	R1.2
	31mm	R1.4
	42mm	R1.9
	51mm	R2.35
	55mm	R2.5
	66mm	R3.0
	77mm	R3.5
	88mm	R4.0
	99mm	R4.5

Product Testing

Test	Test Standard	Result	
Compressive Strength	ASTM C1289-12	>110	Pass
Thermal Conductivity	ASTM C518-10	0.022	
Cone Calorimeter	AS/NZS 3837	Group 1	
Ignitability Flame Spread Heat Release Smoke Release	AS/NZS 1530.3	0/0/0/1	
Emmittence	ASTM C1371	Reflective	E0.04
Water Absorption	ASTM C1289-12	0.1	Pass
Water Vapour Permeance 25mm	ASTM C1289-12	3	Pass
Service Temperature	Above Test	-73°C to 122°C	

Storage

Must be kept dry and indoors.
AP Framing Board must be protected from outside elements, wind, rain and direct sunlight.

- High performance Rigid Closed Cell Insulation
- Low Thermal Conductivity of only 0.022
- Exceeds mandatory specifications of the Australian NCC
- Clear Cavity maintained
- Low Emissivity Foil Facing of E0.04
- CFC/HCFC free with Zero Ozone Depletion Potential (ODP)
- Non Corrosive

SPECIFICATION GUIDE

"The Cavity Wall Insulation shall be Thermacon All Purpose Framing Board __mm Thick, manufactured under a strict quality management system utilising a CFC/JCFC free Rigid Polyisocyanurate (PIR) core sandwiched between low emissivity foil facings. The product is to be installed in accordance with the Installation guide issued by Thermacon Insulation Pty

All Purpose Framing Board

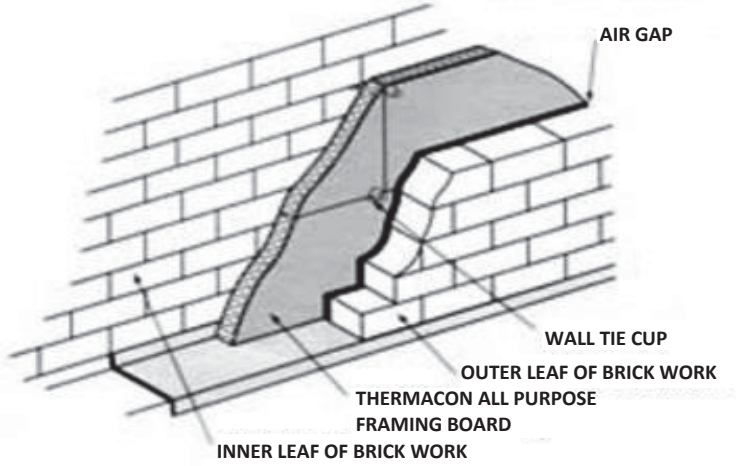
Thermal Performance ^

Total R-Values for various thicknesses of Thermacon's All Purpose Framing Board with various fixing methods.

Thermacon All Purpose Framing Board

Double Brick Cavity Wall

Product Thickness (mm)	Heat Flow In	Heat Flow Out
27	R_T2.42	R_T2.64
42	R_T3.1	R_T3.39

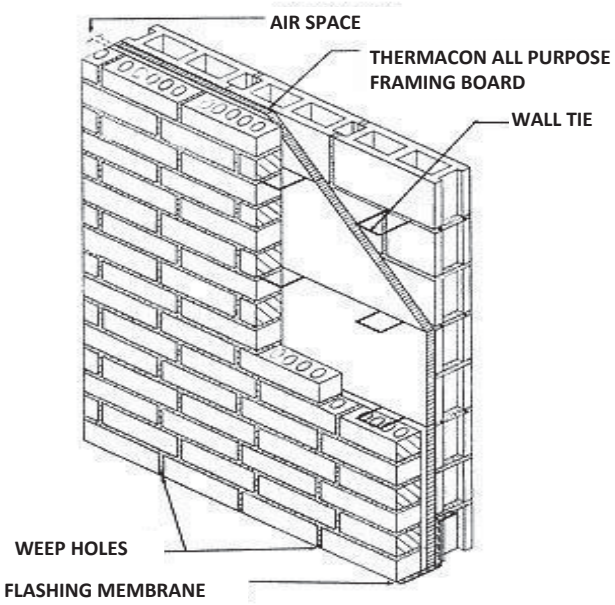


Photograph, wall ties and Insulation retaining clips kindly supplied by Ancon Building Products Pty Ltd – Suppliers to Thermacon Insulation Pty Ltd.

Thermacon Insulation Pty Ltd recommends Ancon Building Products Pty Ltd for all Cavity Wall Insulation installations.

Brick Block Cavity Wall

Product Thickness (mm)	Heat Flow In	Heat Flow Out
27	R_T2.44	R_T2.66
42	R_T3.12	R_T3.41



INSTALLATION GUIDE – BRICK / BLOCK BRICK

1.Thermacon All Purpose Framing Board is fitted to the inner leaf of the Cavity Wall utilising wall ties with retaining discs.
2.Ensure that excess mortar and mortar droppings from exposed edges are removed.
3.Secure Thermacon AP Framing Boards to the inner leaf with an approved wall tie and retaining clips.
4.Please note that the minimum required residual cavity must be maintained in accordance with the waterproof provisions as set out in the National Construction Code of Australia.
5.Place wall ties at recommended centres and ensure insulation is secure.

^ The R-Values shown were prepared and certified by James M. Fricker MIEAust. CPEng. Consultant engineer in insulation to the BCA, the NCC 2011, and the insulation industry. These values are based upon product in an in service condition, and are in accordance with AS/NZS 4859.1:2002. Total R Values are based on product in-service conditions in accordance with AS/NZS4859.1:2002/Amdt 1 (Dec 2006) including the alteration of insulation material R for temperature and derations of reflective foil emittances due to dust as noted. Where a cavity is sealed, it is assumed there is no dust and hence emittance is not derated.

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Concrete Wall Clip Channel

Product Thickness (mm)	Heat Flow In	Heat Flow Out
32	R_T2.42	R_T2.69
42	R_T2.88	R_T3.19

INSTALLATION GUIDE – CONCRETE WALL CLIP

1.Install furring channel clips at recommended spacing for the plasterboard sheeting.

2.Fit the Thermacon AP Framing Board over the furring channel clips flush to the wall, ensuring that the clips penetrate through the board but do not pull the foil facing away from the PIR core. If this looks like occurring, a sharp knife or Stanley knife may be used to cut around the foil where the furring channel clips show through.

3.Closely butt joins of the Thermacon AP Framing Board.

4.Thermacon recommends that joins be taped using Thermacon Reinforced Foil Tape to ensure a continuous vapour barrier. The tape should be 48mm wide. The board should be free of dust, oil or grease and dry. Care should be taken to ensure the self adhesive tape forms a good contact with the board.

5.Fit the furring channels by clipping into channel clips; ensure that the furring channels are flush against the Thermacon AP Framing Board.

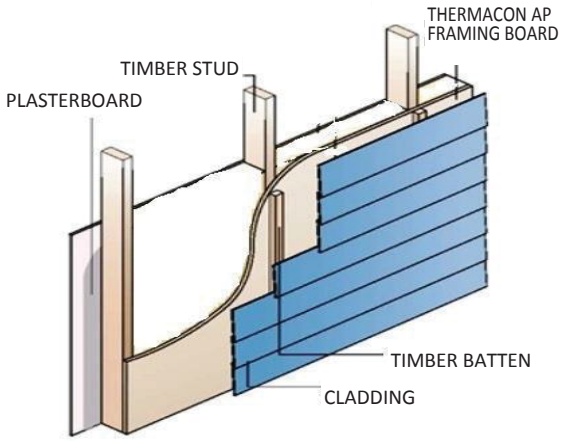
6.The internal plasterboard lining can now be fixed to the furring channels.

Battened Clad Wall Steel or Timber Framed

Product Thickness (mm)	Heat Flow In	Heat Flow Out
27	R_T2.85	R_T3.21
32	R_T3.08	R_T3.47

Brick Veneer Wall

Product Thickness (mm)	Heat Flow In	Heat Flow Out
27	R_T2.97	R_T3.31
32	R_T3.11	R_T3.43



INSTALLATION GUIDE – STEEL / TIMBER FRAMED WALL

1.Stud spacing's are not to exceed 600mm centres.

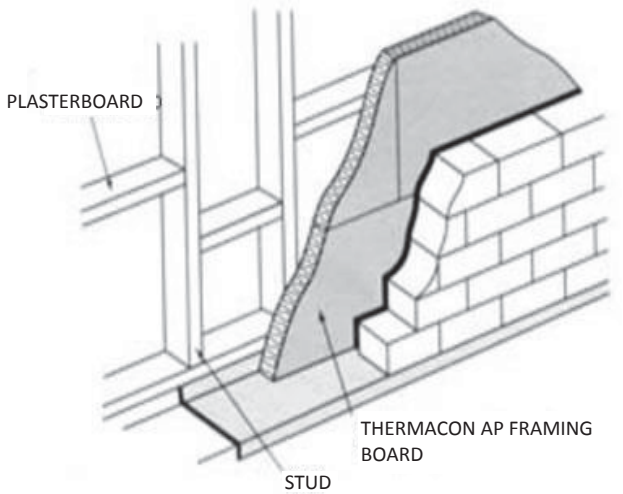
2.Attach Thermacon AP Framing Board to the outside of the frame structure, ensuring that the board joints match up to a vertical member.

3.Lightly butt the board joints.

4.Temporarily secure the board with screws or nails until the support batten is fitted.

5.Attach the vertical support battens to the wall through the insulation, ensuring the fixings match up with a timber stud.

6.Attach the outside cladding panels to the support batten in the normal way.



INSTALLATION GUIDE – BRICK VANEER WALL

1.Stud spacing's are not to exceed 600mm centres.

2.Fix wall ties to the frame.

3.Attach Thermacon AP Framing Board to the outside of the frame structure, ensuring that the board joints match up to a vertical member.

4.Lightly butt the board joints.

5.Secure the board with screws or nails until fixed with a timber frame wall ties, spend clip or insulation retaining disc.

6.Build the outer wall as normal using wall ties to hold the two wall sections together.