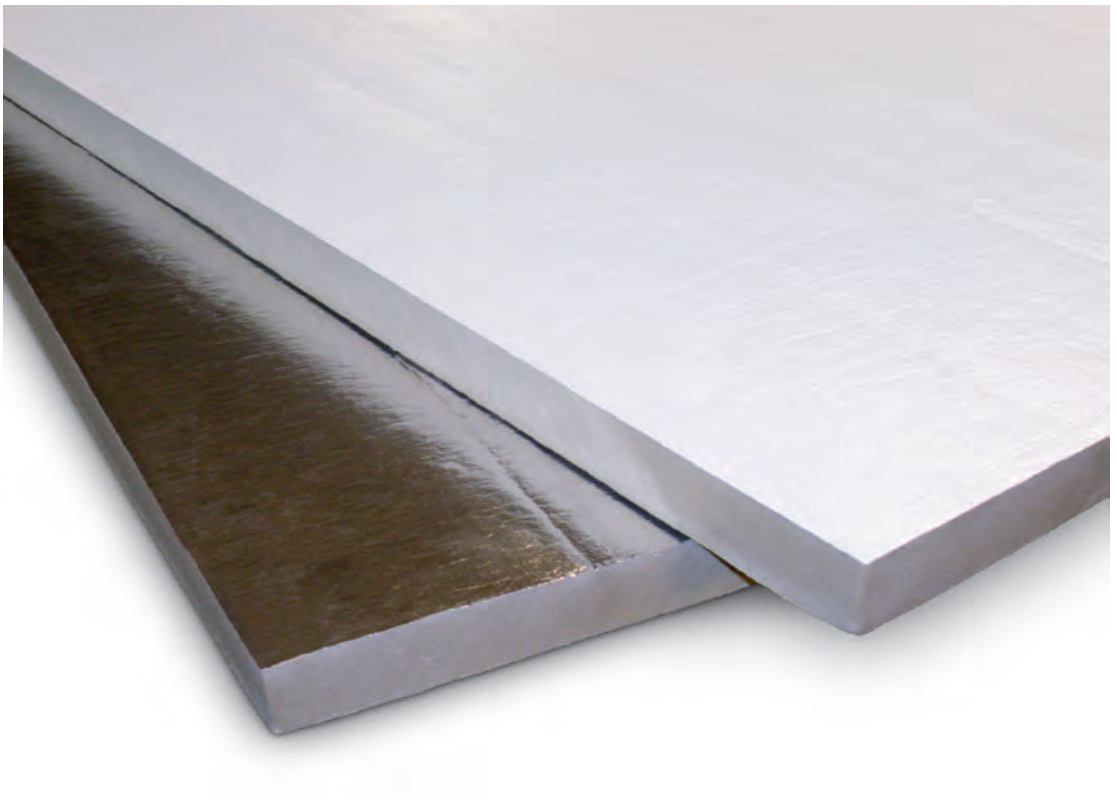
CI MAX Cavity Wall Board (PIR)



Thermacon Insulation Pty Ltd
16 Hodgson Way, Kewdale WA 6105

CI Max Cavity Wall Board

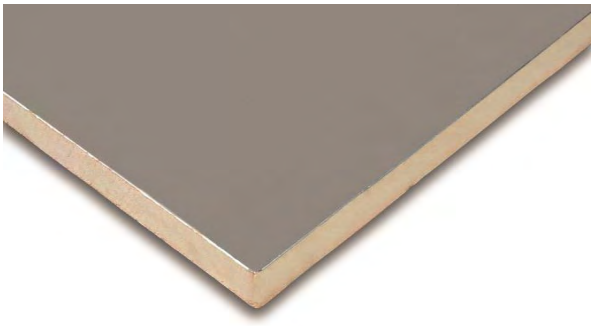
Description

CI Max™ Cavity Wall board is composed of a high performance closed-cell Polisocyanurate (PIR) foam core bonded on each side with a Pure Aluminium and glass mat facer. This reflective, low emissivity surface greatly imprves the thermal resistance of the adjacent cavity.

CI Max™ Cavity wall board has superior fire ratings to many other like products and has been tested to ISO9705 with a group 1 fire rating, and tested NFPA286 corner burn test.

CI Max™ Cavity wall board is lightweight, highly effective continuous thermal barrier with a low thermal conductivity of 0.022w/mk.

CI Max™ Cavity wall board is manufactured with a non HCFC blowing agent resulting in zero ozone depletion potential (ODP).



Use

CI Max Cavity Wall Board is designed for easy installation where high thermal efficency is required with superior Fire testing characteristics.

CI Max Cavity Wall Board is an excellent interior thermal, water resistive, vapour barrier for new interior construction and retrofit. The applications include double brick cavity wall, block/concrete cavity wall, continuous thermal insulation installed over metal/timber framing, underfloor applications and can be exposed within the interior of the building due to the products group 1 classification.

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

Product Information

Product Thickness mm	25, 27, 31, 42, 51, 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	0.22	
Cone Calorimeter	AS/NZS 3837	Group 1	
Ignitability Flame Spread Heat Release Smoke	AS/NZS 1530.3	0/0/0/1	
Emmittence	ASTM C1371	Reflective	E0.04
Water Absorbtion	ASTM C1289-12	0.1	Pass
Water Vapour Permeance 25mm	ASTM C1289-12	3	Pass
Corner Burn Test	NFPA 286		Pass
Service Temperature	Above Test	-73°C to 122°C	
Full Room Cnr Burn Test	ISO9705	Group 1	
VOC Emissions from Building Products	CDPH/EHLB/Standard Method V1.1 (Section 01350)	Meets acceptance criteria for individual VOC's of concern	

SPECIFICATION GUIDE

"The Cavity Wall Insulation shall be Thermacon CI Max Cavity Wall Board mm Thick, manufactured under a strict quality management system utilizing a CFC/HCFC 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 Ltd". – refer below

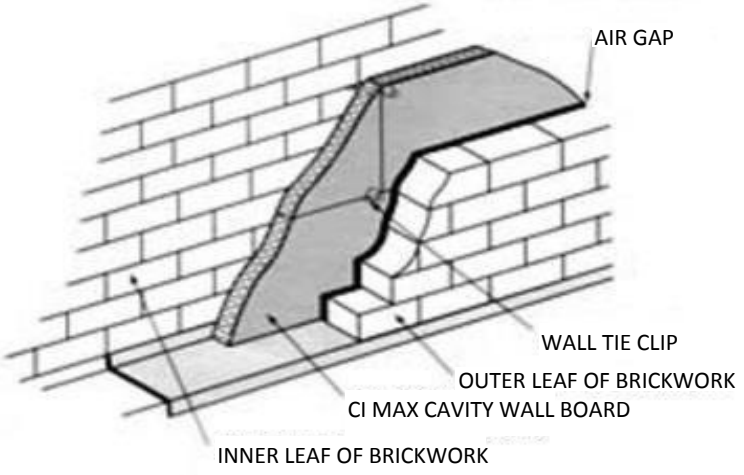
CI Max Cavity Wall Board

Thermal Performance ^

Total R-Values for various thicknesses of Thermacon CI Max Cavity Wall Board with various fixing methods.

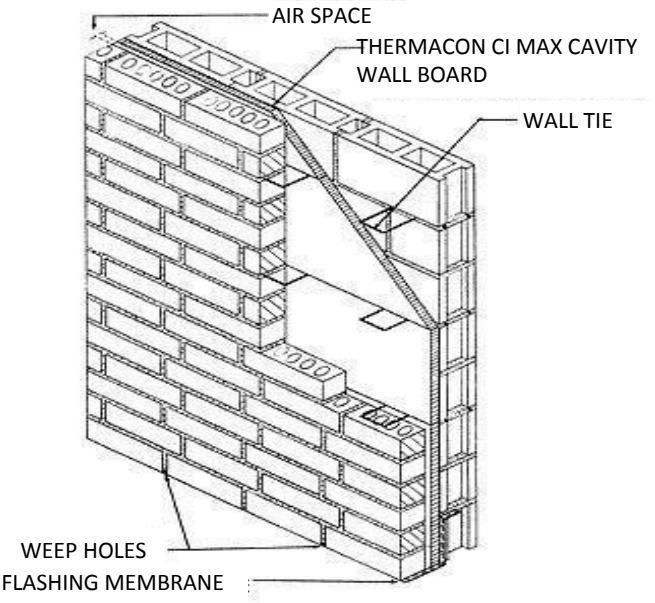
Thermacon CI Max Cavity Wall Board Double Brick Cavity Wall

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



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 CI Max Cavity Wall Board is fitted to the inner leaf of the Cavity Wall utilizing wall ties with retaining discs.
2. Ensure that excess mortar and mortar droppingsfrom exposed edges are removed.
3. Secure Thermacon Cavity Wall 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.

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.

^ 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.

CI Max Cavity Wall Board

Thermacon CI Max Cavity Wall Board 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 CI MAX Cavity Wall 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 the Thermacon CI MAX Cavity Wall 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 CI MAX Cavity Wall Board.

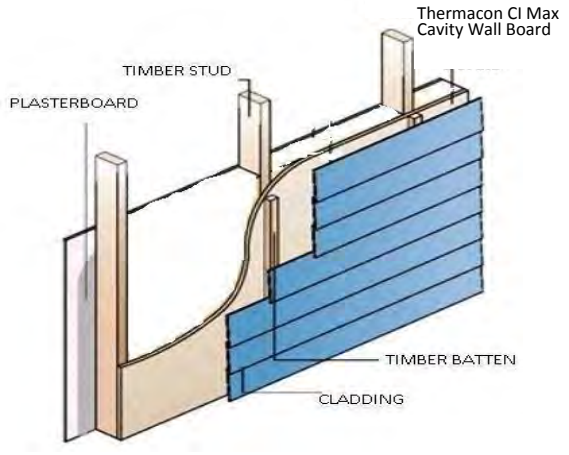
6. The internal plasterboard lining can now be fixed to the furring channels.

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.

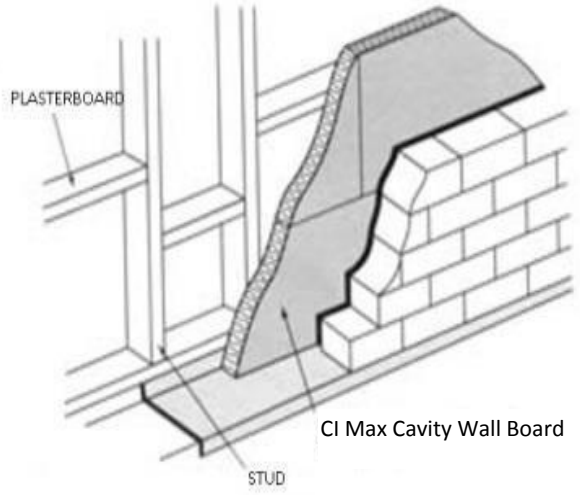
2. Attach Thermacon CI MAX Cavity Wall Board to the outside of the frame structure, ensuring that the board joints match up to a vertical member.

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 CI MAX Cavity Wall 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.