

The Timber Frame Pavaclad System is for timber frame buildings externally finished with any type of cladding including facing bricks, rendered blockwork, timber boards or shingles, tile, terracotta claddings, metal sheet etc.

Pavaclad systems use Pavatex woodfibre boards over the outside of the frame in a continuous layer, with the racking board on the inside of the structure. The racking board acts as the airtightness layer and vapour control in a breathing wall construction. Internally we recommend a service void behind the plasterboard for effective airtightness control and easy service alterations.



System Application:

The Timber Frame Pavaclad System can be used with any conventional timber frame design, provided that the racking board is fixed on the inside of the frame rather than the outside. The same limitations apply as to all timber frame applications. With certain cladding materials, multi occupancy applications require fire stops between units in the external cavity. Contact GreenSteps for further details.

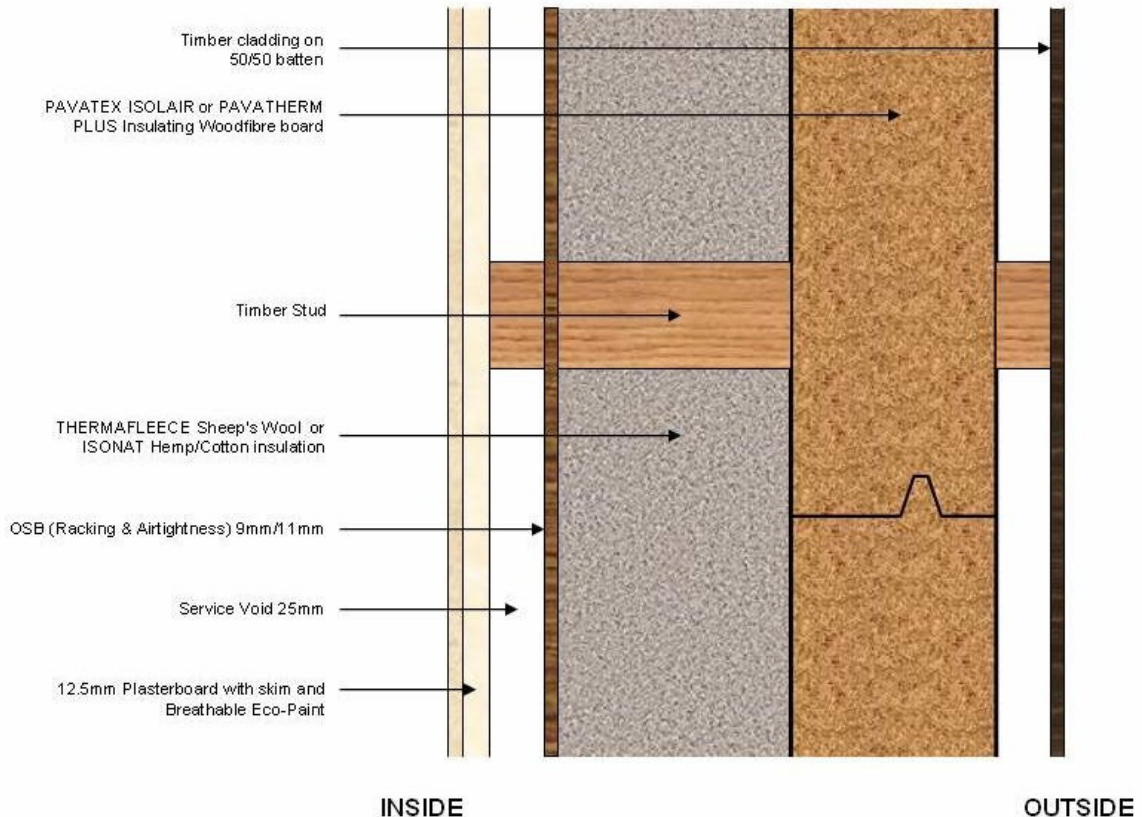
System Benefits:

- Excellent thermal performance, with very low thermal bridging (y values), enabling slim construction for new Part L compliance
- Alternatively, very high thermal shell performance
- Excellent airtightness by design
- Excellent acoustic insulation
- Good overheating control
- Fully breathing construction
- Full design and site support available
- Full systems parts from GreenSteps
- Tried and tested system, fully certified
- Full design and site support available

Environmental Performance:

- BREEAM Green Guide rating: A (with timber cladding)
- Carbon positive (1.2 tonnes of carbon locked up in every one tonne of board) and non-toxic
- Woodfibre Boards are over 95% waste

System Diagram:



Full System Components:

Insulation boards: Interlocking, waterproof Isolair boards (22, 35 or 60mm) OR Pavatherm Plus boards (60, 80 or 100mm).

Tapes and Glues: Pavatape and primer for exposed edges, selection of airtightness details for internal junctions.

Fixings: A range of helical and screw fixings for different boards and claddings.

Infill insulation: GreenSteps will provide either Thermafleecce sheep's wool insulation or Isonat Hemp/Cotton insulation to provide a fully breathing, environmentally sound construction.

Plaster boards and paints: GreenSteps can provide clay boards, plasters and environmentally friendly paints for internal walls.

Timber Frames: GreenSteps can provide contacts at suitable timber frame manufacturers if required.

Available Support:

Design support: Full design support including drawings review, assistance with detailing, thermal bridging (New Part L), and interstitial moisture calculations.

Training: On site for applicators, site managers etc.

Site Support: Assistance on site, advice on technical, application and quality issues.

Installation: Full installation and eco-building service available in London and Essex region

Technical Performance Details:

89mm Timber Stud

Insulation onto Stud	22mm Isolair	35mm Isolair	60mm Pavatherm Plus	80mm Pavatherm Plus	100mm Pavatherm Plus
Insulation between Stud	Thermafleece or Isonat	Thermafleece or Isonat	Thermafleece or Isonat	Thermafleece or Isonat	Thermafleece or Isonat
U-Value* (W/m ² K)	0.36	0.33	0.27	0.24	0.22
Decrement Factor	0.82	0.75	0.63	0.50	0.39
Decrement Delay (h)	4.0	5.0	6.4	7.8	9.1
Admittance (W/m ² K)	1.47	1.48	1.50	1.50	1.50

140mm Timber Stud

Insulation onto Stud	22mm Isolair	35mm Isolair	60mm Pavatherm Plus	80mm Pavatherm Plus	100mm Pavatherm Plus
Insulation between Stud	Thermafleece or Isonat	Thermafleece or Isonat	Thermafleece or Isonat	Thermafleece or Isonat	Thermafleece or Isonat
U-Value* (W/m ² K)	0.27	0.25	0.21	0.19	0.18
Decrement Factor	0.75	0.68	0.55	0.42	0.32
Decrement Delay (h)	5.3	6.4	7.8	9.2	10.6
Admittance (W/m ² K)	1.51	1.51	1.52	1.52	1.52

*based on JPA calculation with 15% bridging (timber)