

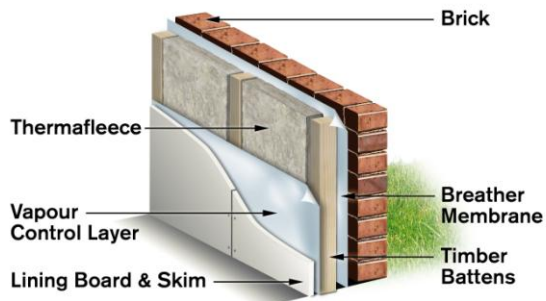
# Wall Applications...

Thermafleece is extremely versatile and can be used in many wall applications as an alternative to conventional insulation.

## Solid Walls

Thermafleece can be used as part of a system to internally insulate solid walls reducing energy loss in otherwise hard to heat properties.

Thermafleece can be securely fitted between studwork to full-fill or part-fill the void.



Fit a breather membrane to the inner face of the solid wall on the cold side of the insulation and fit a vapour control layer to the warm side before installing the wall finishing.

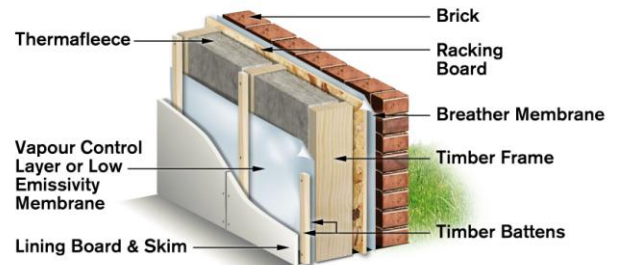
Fit the insulation layers between studs ensuring all joints are close-butted to avoid air gaps. Overlap additional layers to reduce thermal bridging and air gaps. The friction of the insulation will hold it in place.

A service void can be created by counter battening along the timber frame and fixing an internal lining board. This ensures that the insulation remains undisturbed and airtightness remains intact when services are accessed for maintenance. The insulation performance of the void can be improved by replacing the VCL with an Eden Low Emissivity Membrane.

## Standard Timber Frame Wall

A standard timber frame construction incorporates a 140mm timber stud with a 9mm racking board attached to the outer leaf to form a structural wall system.

All internal load-bearing and non load-bearing walls are constructed using an 89mm timber stud.



Fix VCL to the warm side of the insulation to reduce the risk of interstitial condensation. The addition of vapour impermeable materials must be correctly detailed and materials must be completely sealed to ensure that no moisture can penetrate into the structure.

Thermafleece can be used to fill the wall void as part of a system to comply with Part L of the Building Regulations.

## Twin Timber Frame Wall

Twin frame systems utilise two standard 89mm timber studs to allow a deeper timber frame that can be insulated to a greater thickness.

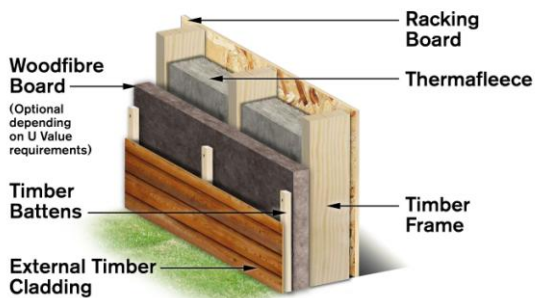
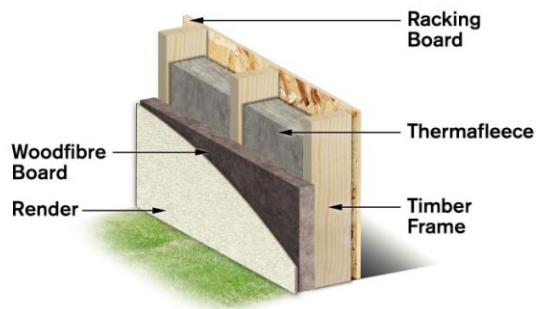


The twin frame system ensures that reduced thermal bridging occurs within the construction helping to maximise insulation performance. By using two 89mm structural timber frames, the width of the construction can be varied to achieve specific insulation performance.

# Wall Applications...

## Breathing Timber Frame Wall

Breathing timber frame wall systems incorporate a standard timber frame structure in conjunction with an external natural fibre insulation board. Thermafleece should be fitted between studs before the external components are installed. This provides a complete breathing wall structure without relying on breather membranes or internal vapour controls.

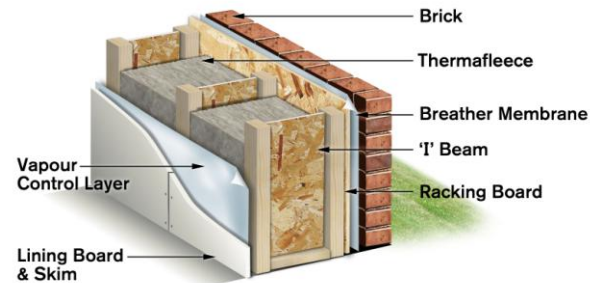


Unlike traditional timber frame systems, the racking board is positioned to the inside of the timber frame. The external insulation attached to the timber frame maintains the frame above the dewpoint temperature reducing the risk of condensation. Additional benefits include low environmental impact, lightweight structure and improved insulation and airtightness.

## “T” Beam Timber Frame Wall

The timber ‘T’ beam system is used to create a greater depth of timber frame which can be filled with a greater quantity of insulation. The structural timber frame ‘T’ beam section has a

racking board attached to the cavity side of the construction to give a high degree of strength. The system can also be fabricated as a closed panel system, delivered to site in sections that can be pre-insulated with the Thermafleece.



A service void can be created by counter battenning along the timber frame internal face and fixing the internal finishing board. This ensures that the insulation remains undisturbed and airtightness remains intact when services are accessed for maintenance. The insulation performance of the void can be improved by installing an Eden Low Emissivity Membrane against the insulation.

As with other insulation products, it may be necessary to de-rate electrical cables buried in insulation. BS 7671: 2008 suggests that where wiring is completely surrounded by insulation, it may need to be de-rated to as low as half its free air current carrying capacity. Guidance should be sought from a qualified electrician.

## Technical Support

For further information, U-value calculations and compliance with current Building Regulations call us on **01768 486285** or email [enquiries@thermafleece.com](mailto:enquiries@thermafleece.com).