



Internal Wall Insulation

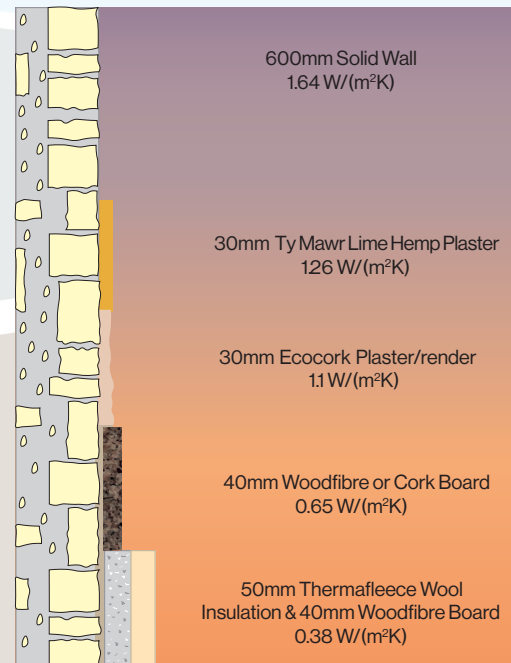
Internal Wall Insulation is applied from the inside and may necessitate the **removal of all fittings** e.g. radiators, skirting boards, architraves etc. It can therefore be **more involved** than **External Wall Insulation**. It must be carried out correctly, even if you are using appropriate materials. Otherwise you can risk increasing the chance of interstitial condensation.

The **options** shown (right) are graphical representations of some of our solutions, please contact us should you require an actual **calculation** undertaken for your **specific situation**. Please note your architect should then **consider any problems** of the site and any **detailing** required such as use of a breather membrane.

The boards can carry **various plasters** including our **lime plasters**, and **lime hemp products**, the application guides must be followed for successful results – see www.lime.org.uk or call us for details. Some of the components of these options are described in more detail on the reverse of this leaflet.

PLEASE NOTE: when insulating internally, you must protect from driving rain/moisture ingress.

The **U-value** of a wall is a measure of the rate at which **heat passes through** the wall and so is a measure of **how well insulated** the wall is and is expressed in terms of “Watts per meter squared-Kelvin” ($\text{W}/\text{m}^2\text{K}$). **The lower the U-value, the better the performance** of the insulation and the less it will cost to heat your home. For **building regulations** in an **existing building**, a U-value of around **$0.30\text{W}/\text{m}^2\text{K}$ or lower** is recommended (but please refer to current building regulations). Carrying out a whole house energy survey is useful. Building control often allow less insulation & should follow part L1B & the British Standard 7913 reference solid wall buildings. The **reduction in space, aesthetic, environmental impact of the material used** and whether or not the **building is listed** will all have some bearing on what you **ultimately choose** or can **practically achieve**, please call our Product Advisers to discuss your requirements.



Please note $0.3\text{W}/\text{m}^2\text{K}$ required to meet current Building Regulations but please check for updates!

Please note – figures are for illustrative purposes only, please contact us for up-to-date calculations using current values for your application. Finish with, lime hemp, ecoCork or a traditional lime plaster. *Other ecological boards and insulation materials are available, please call for further information.



Tŷ-Mawr

Caring for the future,
respecting the past...

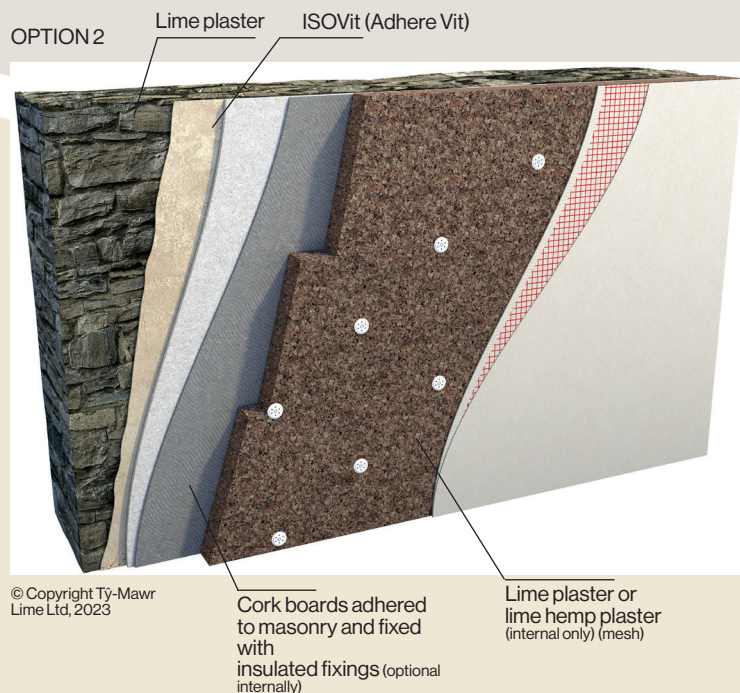
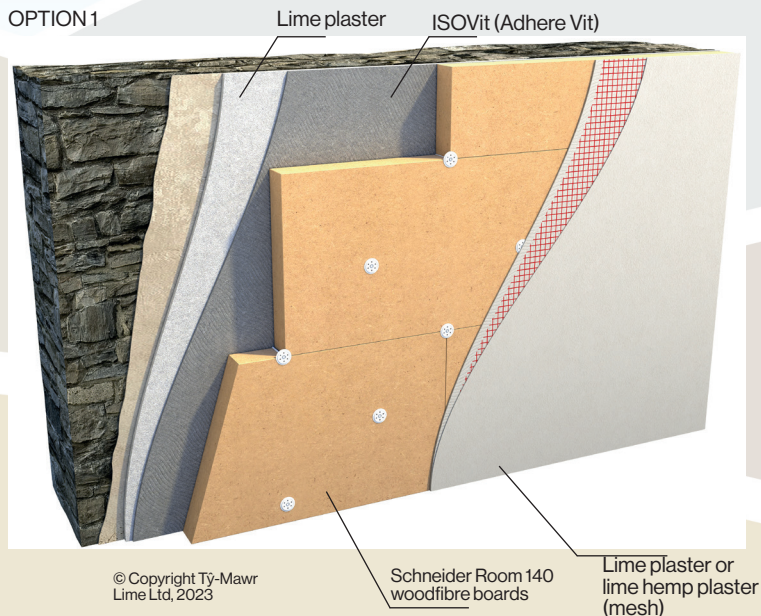
Manufacturer and supplier of traditional and environmentally-friendly building materials.

Tŷ-Mawr's Internal Wall Insulation Systems are also part of our range of sustainable building solutions. In addition to their thermal and acoustic performance, their vapour permeable properties help them to regulate humidity within the building contributing to a more comfortable and healthy living environment.

These systems are ideal for the refurbishment of existing solid walls. Where internal space is limited

and/or it is not possible to meet current building regulations, lime hemp or ecoCork plaster can be applied directly to the walls to add some thermal insulation and assist with air tightness, please contact us for a product information sheet.

The Tŷ-Mawr systems offer a choice of high quality, ecological and sustainable insulation materials, see 4 different options in table below.



500mm Solid Wall (appropriate external protection from driving rain is essential when undertaking internal wall insulation – please contact us for advice)	
Minimum 20mm hydraulic lime plaster	
Option 1 (woodfibre)	Option 2 (cork)
Adhesive 10mm combed coat	Adhesive 10mm combed coat
40-60mm woodfibre board	40-60mm Cork board
1 x 6mm Fine Hemp Plaster with mesh* and 1 x 6mm Fine Hemp top coat which can be finished with 1 x 3mm Internal Finish or Superfine Plaster for a finer finish	
Vapour permeable Paint Finish - Maxil, Tŷ-Mawr Limewash, Clay Paint, Ecosphere	

*preferred option

Table shows typical thicknesses suitable for internal wall insulation, but please contact us for a specific u-value calculation, condensation risk analysis and quotation for your project.

Sales & Distribution - Tŷ-Mawr Lime Ltd, Unit 12, Brecon Enterprise Park, Brecon, Powys. LD3 8BT. - **Tel** : 01874 611 350
Manufacturing & Courses - Tŷ-Mawr Lime Ltd, Ty-Mawr, Llangasty, Brecon, Powys, LD3 7PJ. - **Email**: tymawr@lime.org.uk

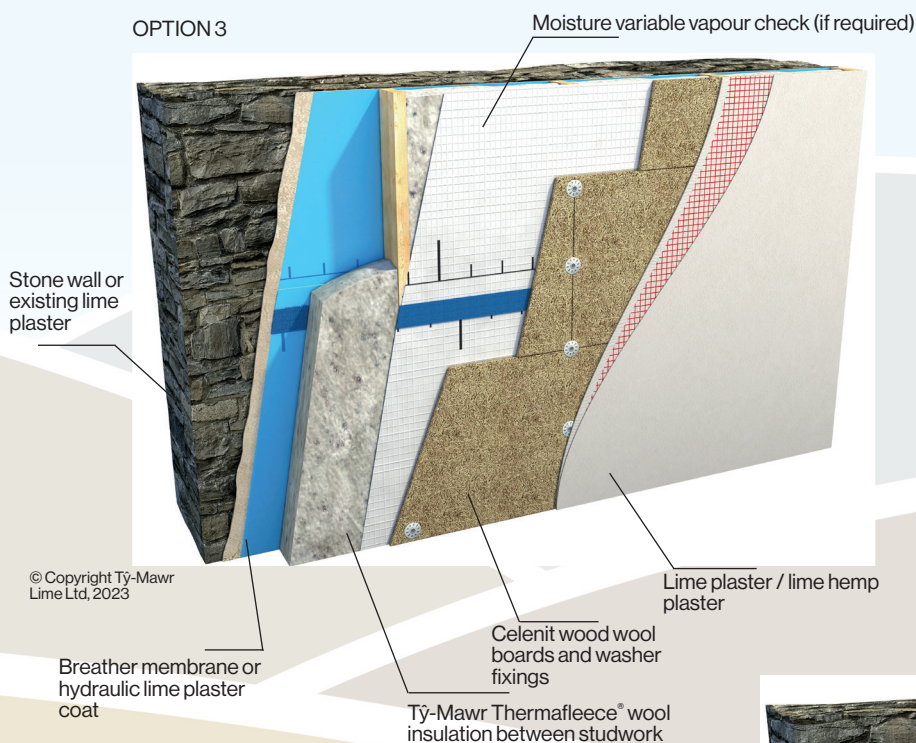


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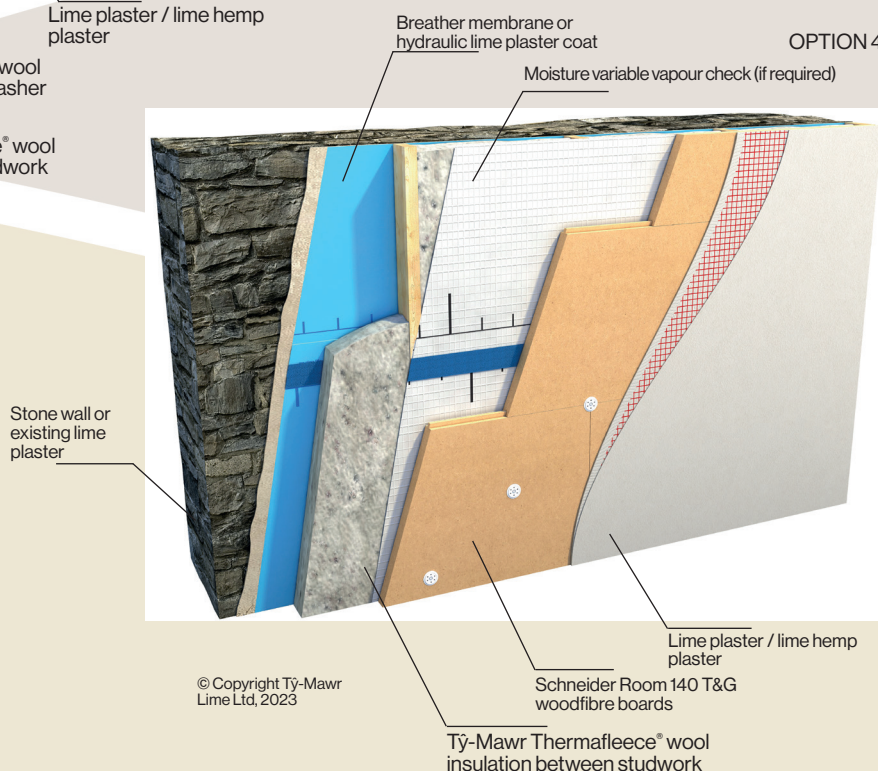
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OPTION 3



OPTION 4



500mm Solid Wall (appropriate external protection from driving rain is essential when undertaking internal wall insulation – please contact us for advice)

Breather Membrane

Option 3 (Sheep's wool & wood wool)

Option 4 (Sheep's wool & woodfibre)

125mm of insulation chosen from below

100mm of insulation chosen from below

Ty-Mawr Thermafleece Cosywool/Ultrawool/NatraHemp

Moisture variable vapour check if required

Celenit 15mm Wood Wool board fixed with plastic washers and screws at 8 per m2

Woodfibre board T&G 40mm fixed with plastic washers and screws at 8 per m2

1 x 6mm Fine Hemp Plaster with mesh* and 1 x 6mm Fine Hemp top coat which can be finished with 1 x 3mm Internal Finish or Superfine Plaster for a finer finish

*preferred option

Vapour permeable Paint Finish - Maxil, Tŷ -Mawr Limewash, Clay Paint, Ecosphere

Table shows thicknesses to achieve current building regulations, but please contact us for a specific u-value calculation, condensation risk analysis and quotation for your project.