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Celotex
Insulation Specialists

Timber Frame Specification Guide

Contents

Burbo Point, Merseyside

Introduction

Timber frame dwellings represent some of the oldest structures in the United Kingdom, which is a testament to the versatility of timber as a building material. A popular form of construction for dwellings in Scotland, timber frame is becoming increasingly common in England and Wales. Timber frame constructions can be insulated to very low U-values, which can assist building designers in achieving strong fabric performance and meeting the energy conservation requirements outlined in the Building Regulations.

Celotex FR5000 is a premium performance PIR solution for use in timber frame applications. FR5000 comprises a rigid polyisocyanurate foam core with a super low lambda value of 0.021 W/mK and Celotex IQ emissivity, delivering enhanced thermal performance in unventilated timber frame air spaces. FR5000 can be used inter stud or as a sheathing solution for timber frame constructions.

Timber frame dwellings represent some of the oldest structures in the United Kingdom, which is a testament to the versatility of timber as a building material.

Product Properties

Celotex FR5000

Celotex FR5000 is a multi-purpose insulation board with a rigid polyisocyanurate foam core adhesively bonded in the manufacturing process to super low emissivity aluminium foil facings on both sides.

Dimensions: 1200mm x 2400mm

Thickness Range: 25mm – 150mm

Compressive Strength: ≥120 kPa
BS EN 826:1996 (Thermal insulating products for building applications – determination of compressive behaviour)

Dimensional Stability: DS (TH) 8
BS EN 1604:2013 (Thermal insulating products for building applications – determination of dimensional stability under specified temperature and humidity conditions)

Thermal Performance: Celotex FR5000 has a declared thermal conductivity (λ-value) of 0.021 W/mK in accordance with BS EN 13165:2008 (Thermal insulation for products – factory made rigid polyurethane foam (PUR) products).

Celotex GS5000

Celotex GS5000 is a thermal plasterboard laminate comprising a rigid polyisocyanurate foam core bonded to 9.5mm tapered edge gypsum plasterboard. The insulation component of GS5000 has super low emissivity aluminium foil facings on both sides delivering enhanced thermal performance in unventilated cavity air spaces.

Dimensions: 1200mm x 2400mm

Thickness Range: 25mm – 60mm + 9.5mm plasterboard

Compressive Strength: ≥120 kPa
BS EN 826:1996 (Thermal insulating products for building applications – determination of compressive behaviour)*

Dimensional Stability: DS (TH) 8
BS EN 1604:2013 (Thermal insulating products for building applications – determination of dimensional stability under specified temperature and humidity conditions)*

Thermal Performance: Celotex GS5000 has a declared thermal conductivity (λ-value) of 0.021 W/mK in accordance with BS EN 13950:2005 (Gypsum plasterboard thermal/acoustic insulation composite panels – definitions, requirements and test methods).*

The thermal conductivity (λ-value) of the plasterboard component of Celotex GS5000 is 0.19 W/mK.

** Insulation only*

Timber Frame Insulation

Celotex FR5000 Technical Data

Product Code	Thickness (mm)	R-value (m^2K/W)	Weight (kg/m^2)
FR5025	25	1.15	1.01
FR5040	40	1.90	1.49
FR5050	50	2.35	1.81
FR5060	60	2.85	2.16
FR5070	70	3.30	2.48
FR5075	75	3.55	2.64
FR5080	80	3.80	2.80
FR5090	90	4.25	3.12
FR5100	100	4.75	3.38
FR5120	120	5.70	4.02
FR5150	150	7.10	4.98

Drylining Insulation

Celotex GS5000 Technical Data

Product Code	Thickness (mm)	R-value (m^2K/W)	Weight (kg/m^2)
GS5025	25 + 9.5	1.20	7.20
GS5040	40 + 9.5	1.95	7.68
GS5050	50 + 9.5	2.40	8.00
GS5060	60 + 9.5	2.90	8.35

Celotex FR5000 is faced with super low emissivity aluminium foil facings on both sides

Fire Performance

Timber Frame Insulation

Celotex FR5000 is Class O fire rated as described by the national Building Regulations having achieved:

- A pass to BS 476 Part 6:1989 (fire tests on building materials and structures-method of test for fire propagation for products)
- Classification as Class 1 in accordance BS 476 Part 7:1997 (fire tests on building materials and structures-method of test to determine the classification of the surface spread of flame or products)

Drylining Insulation

Celotex GS5000 is classified as Euroclass B-S1, d0 in accordance with:

- BS EN 13501-1:2007 (fire classification of construction products and building elements -classification using test data from reaction to fire tests).

Celotex IQ Emissivity

Celotex FR5000 and Celotex GS5000 is faced with super low emissivity aluminium foil facings on both sides. The highly reflective foil facings deliver better U-values in timber roof constructions by enhancing the thermal resistance of the unventilated cavity air space adjacent to the board.

Ocean Village, Southampton

Certification

Third party approvals play a key role in distinguishing product performance between different manufacturers. To eradicate the perception that all PIR is the same, we recognise the importance of approvals and certifications from a number of leading organisations, including BBA, BRE and ISO. These approvals include independent validation of thermal, fire and other product standards.

Product Code	Application	BBA No.	ISO 9001	ISO 14001
FR5000	Timber Frame	95/3197	✓	✓
GS5000	Drylining	-	✓	✓

Kentgate, Cumbria

Sustainability

Suitable for use within a number of applications within the building fabric, the specification of Celotex products will significantly contribute to improving the energy efficiency of the UK's building stock.

Celotex is also able to independently certify the environmental impact for a selection of its product ranges. This includes Celotex FR5000.

Measured by its BRE Ecopoint score, Celotex achieve the lowest environmental impact of any PIR manufacturer and from its most recent recertification, has improved this score by over 5% since 2010. Moreover, when compared to the generic PIR Ecopoint value, Celotex' impact is over 20% better than that of non-certified PIR manufacturers.

Through its BRE Approved Environmental Profile, Celotex was the first PIR manufacturer to achieve an A+ Green Guide rating. This rating has been maintained through ongoing recertification and now includes even more Celotex products as part of the profile.

Celotex products are all manufactured in accordance with environmental management system ISO 14001. As well as this, the suppliers of the principal raw materials used in the manufacture of Celotex products also possess this standard allowing a credit to be achieved within the Materials category of BREEAM assessments.

Celotex manufacture solutions that start saving energy as soon as they are installed. Over its useful life, PIR insulation saves over 100 times more energy than was used in its manufacture.

For further information please see Celotex' Sustainability Guide available at **celotex.co.uk**

Timber Frame Insulation		
Name of Insulation Material	FR5000	✓
Manufacturer	Celotex	✓
Unfoamed, Foamed or Installed using Propellants	Foamed	✓
Global Warming Potential (GWP)	Less than 5	✓
Blowing Agent	Pentane	✓
Green Guide Rating	A+	✓
Element Number	1315320025	✓
Environmental Management System (EMS) - Key Process	ISO 14001	✓
Environmental Management System (EMS) - Supply Chain Process	ISO 14001	✓

Drylining Insulation		
Name of Insulation Material	GS5000	✓
Manufacturer	Celotex	✓
Unfoamed, Foamed or Installed using Propellants	Foamed	✓
Global Warming Potential (GWP)	Less than 5	✓
Blowing Agent	Pentane	✓
Green Guide Rating*	A+	✓
Element Number*	1315320025	✓
Environmental Management System (EMS) - Key Process	ISO 14001	✓
Environmental Management System (EMS) - Supply Chain Process	ISO 14001	✓

**Insulation component only*

Specification Support

Specification Clause

Celotex FR5000

The timber frame insulation shall be Celotex FR5000 _____mm thick, comprising a polyisocyanurate (PIR) rigid foam insulation core featuring Celotex IQ providing super low emissivity textured aluminium foil facings on both sides and Class O fire performance throughout the product in accordance with BS 476. FR5000 is A+ rated when compared to the BRE Green Guide, is CFC/HCFC free with low GWP and zero ODP and achieves CE marking compliance to BS EN 13165. FR5000 is manufactured in accordance with quality management systems ISO 9001 and environmental management system ISO 14001. All products must be installed in accordance with instructions issued by Celotex.

Celotex GS5000

The drylining insulation shall be Celotex GS5000 _____mm thick comprising a polyisocyanurate rigid foam insulation core with a thermal conductivity of 0.021 W/mK with Celotex IQ aluminium foil facings on both sides bonded to a layer of 9.5mm tapered edge plasterboard. GS5000 is CFC/HCFC free with zero ODP and low GWP and achieves CE marking compliance to BS EN 13950. GS5000 is manufactured in accordance with quality management system ISO 9001 and environmental management system ISO 14001. All products must be installed in accordance with instructions issued by Celotex.

Building Information Modelling (BIM)

Celotex FR5000 and GS5000 are available for BIM in the following software formats:

- Autodesk Revit
- ArchiCAD
- Vectorworks
- Bentley
- Industry Foundation Classes (IFC)

Celotex products are available for BIM through both **celotex.co.uk/bim** and the NBS National BIM Library.

NBS Specifications

Celotex FR5000 is referenced in the following NBS clauses:

- F30 155
- F30 12
- P10 190
- P10 40

Celotex GS5000 is referenced in the following NBS clauses:

- K10 15
- K10 45
- K10 205

Technical Services

Celotex provide outstanding levels of technical expertise and personal assistance through two industry leading services:

Celotex Technical Centre

When it comes to finding easy-to-understand, quick and helpful advice regarding PIR insulation, the Celotex Technical Centre (CTC) is where you will discover high levels of support and guidance on finding the most appropriate solutions to meet your requirements.

This includes provision of:

- U-value calculations
- Condensation risk analysis
- Application and installation advice
- Guidance on compliance to Building Regulations
- Information on our product and environmental credentials

Call the Celotex Technical Centre on **01473 820850** to speak to one of our advisors, or alternatively email **technical@celotex.co.uk**

Celotex Energy Assessments

Offering energy calculations including SAP, SBEM and bespoke thermal modelling as well as additional services for pre-tender planning and sustainability assessments for the Code for Sustainable Homes and BREEAM.

For more information on Celotex Energy Assessments (CEA) please take a look at the CEA brochure on celotex.co.uk with a full breakdown of the services we can provide for your project requirements. For more information please phone **0333 733 0850** or email **info@celotexea.co.uk**

For more information on how to download Celotex FR5000 and GS5000 for BIM, visit **celotex.co.uk/bim**

Customers should be aware that Celotex and Darren Evans Assessments are separate legal entities and Celotex makes no warranty as to the quality of the services that DEA provides and assumes no responsibility in connection with those services. Customers should also be aware that, as an Assured Partner of Celotex, Darren Evans Assessments operate under a commercial agreement with Celotex for services provided by Darren Evans Assessments under the Celotex Energy Assessment Service.

Building Regulations

England Part L 2013

Part L is an Approved Document within the Building Regulations for England dealing with the Conservation of Fuel and Power. It ensures that the design and construction of new buildings, as well as work done on existing buildings, meets targets designed to limit the associated CO_2 emissions from the building following its construction or modification. Below is a guidance table of U-values to help comply with Part L 2013 Building Regulations.

	New Build		Existing Buildings	
	Domestic Notional Value/Backstop	**Non-Domestic Notional value/ Backstop**	**New Thermal Element e.g. Extensions**	**Existing Thermal Element e.g. Garage Conversions**
Walls	0.18 / 0.30	0.26 / 0.35	0.28	0.30
Floors	0.13 / 0.25	0.22 / 0.25	0.22	0.25
Pitched Roofs	0.13 / 0.20	0.18 / 0.25	0.18	0.18
Flat Roofs	0.13 / 0.20	0.18 / 0.25	0.18	0.18

Scotland Section 6 2010

Section 6 of the Scottish Building Regulations is the Technical Handbook that deals with Energy within the built environment. Section 6 supports the Climate Change (Scotland) Act 2009 as it seeks to meet the target of an 80% reduction in carbon emissions by 2050 by ensuring that effective measures for the conservation of fuel and power are taken with constructing new or modifying existing buildings. Below is a guidance table of U-values to help comply with Section 6 2010 Building Regulations.

	New Build		Existing Buildings	
	Domestic Notional Value/Backstop	**Non-Domestic Notional Value/ Backstop**	**New Thermal Element e.g. Extensions**	**Existing Thermal Element e.g. Garage Conversions**
Walls	0.19 / 0.25	0.26 / 0.27	0.19* / 0.22*	0.30
Floors	0.15 / 0.20	0.22 / 0.22	0.18* / 0.18*	0.25
Pitched Roofs	0.13 / 0.18	0.18 / 0.20	0.18* / 0.18*	0.25
Flat Roofs	0.13 / 0.18	0.18 / 0.20	0.18* / 0.18*	0.25

**Value required when extensions for houses have a reasonable standard of insulation*

U-value Tables

U-value tables for timber frame construction with Celotex GS5000 lining

Cladding on battens, Celotex FR5000 between timber frame, Celotex GS5000 lining

Stud depth (mm)	Product code	FR5060	FR5070	FR5075	FR5080	FR5090	FR5100	FR5120
100	GS5025	0.25	0.23	0.23	0.22	-	-	-
	GS5040	0.21	0.20	0.19	0.19	-	-	-
	GS5050	0.19	0.18	0.18	0.17	-	-	-
	GS5060	0.17	0.16	0.16	0.16	-	-	-
140	GS5025	0.24	0.22	0.22	0.21	0.20	0.19	0.18
	GS5040	0.20	0.19	0.19	0.18	0.17	0.17	0.15
	GS5050	0.18	0.18	0.17	0.17	0.16	0.15	0.14
	GS5060	0.17	0.16	0.16	0.15	0.15	0.14	0.13

Brickwork outerleaf, Celotex FR5000 between timber frame, Celotex GS5000 lining

Stud depth (mm)	Product code	FR5060	FR5070	FR5075	FR5080	FR5090	FR5100	FR5120
100	GS5025	0.23	0.22	0.21	0.21	-	-	-
	GS5040	0.20	0.19	0.18	0.18	-	-	-
	GS5050	0.18	0.17	0.17	0.17	-	-	-
	GS5060	0.17	0.16	0.16	0.15	-	-	-
140	GS5025	0.23	0.21	0.21	0.20	0.19	0.18	0.17
	GS5040	0.19	0.18	0.18	0.18	0.17	0.16	0.15
	GS5050	0.18	0.17	0.17	0.16	0.15	0.15	0.14
	GS5060	0.16	0.16	0.15	0.15	0.14	0.14	0.13

The build up assumes a 12.5mm plasterboard internally and 1000 gauge polythene vapour control layer.

U-value tables for timber frame construction with Celotex FR5000 sheathing

Brickwork outerleaf, Celotex FR5000 between timber frame, 50mm Celotex FR5000 sheathing

Stud depth (mm)	FR5060	FR5070	FR5075	FR5080	FR5090	FR5100	FR5120
100	0.18	0.17	0.17	0.17	-	-	-
140	0.18	0.17	0.16	0.16	0.15	0.15	0.14

The build up assumes Celotex GS5000 jointed and sealed to form the vapour control layer

Design Considerations and Installation Guidelines

Design Considerations

A timber frame wall generally consists of a variable depth of softwood studs both horizontal and vertical to form a frame. Internally it is usually finished with a decorative board and if required a batten airspace as a service void. Externally the frame will be made resistant to external moisture with a protective membrane and either a battened cladding system or an outer leaf of masonry.

Designers may specify a timber frame wall to form an external facing element that is load bearing, with a masonry outer leaf or external cladding.

Timber frame walls can also be non-load bearing to form a lightweight partition wall. In each case, the application of choice will require insulation when it separates a heated from an unheated space.

Insulation can be installed within the depth of the studs, continuously across the inner or outer face of the studs, or in a combination of these positions.

Thermal Performance

U-values

The tables on page 10 demonstrate how Celotex insulation can contribute to meeting the energy conservation requirements outlined in the Building Regulations.

Linear Thermal Bridging

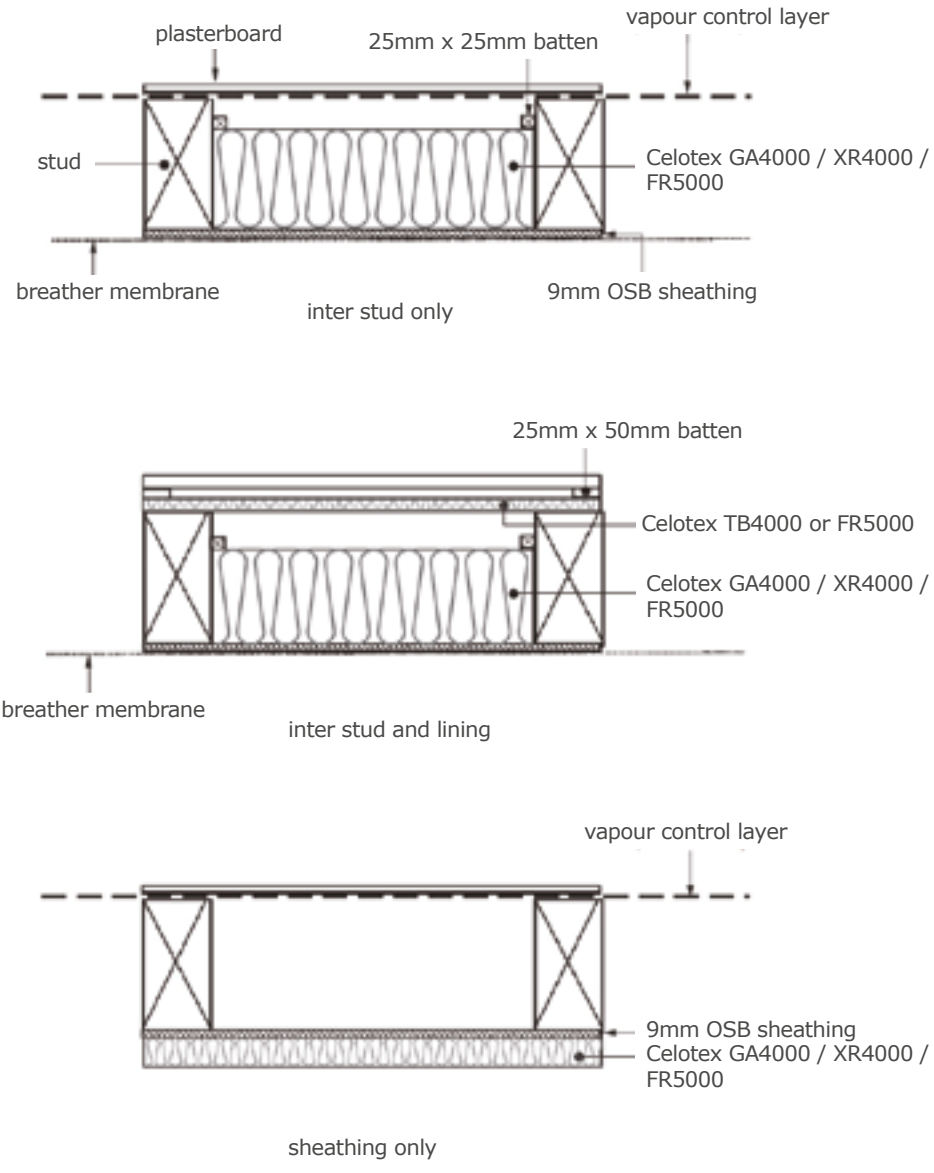
Building Regulations require building designers to consider heat loss through junctions within the construction. Approved Document L clarifies the requirement:

"The building fabric should be constructed so that there are no reasonably avoidable thermal bridges in the insulation layers caused by gaps within the various elements, at the joints between elements, and at the edges of elements such as those around window and door openings"

Similar performance standards are required in Scotland and Northern Ireland.

As insulation standards continue to evolve, is has become increasingly critical to consider heat loss in these areas. Accreditated Construction Details (ACDs) for England & Wales, Scotland and Northern Ireland provide practical guidance on meeting this requirement. The documents provide approved design details for junctions within many common constructions, including timber frame wall.

Where work is being undertaken in an existing building, for example extensions, the requirement can be met by adopting the designs given in Accredited Construction Details. Where a new building is being constructed, heat loss through each junction is considered as part of the whole building carbon dioxide emissions calculation.



Source: Celotex Timber Frame BBA Certificate

Figure 1.

Using improved junction detailing will allow buildings to more easily meet the requirements of the Building Regulations. Heat loss through each junction is represented by the psi (ψ) value. Where ACDs have been adopted then a default ψ value may be used for each junction.

Junctions can also be individually modelled by a competent person and the ψ value calculated. This value can be used directly in the whole building calculation. This approach will allow easier compliance and promotes strong fabric performance of the building. Celotex Energy Assessments are able to provide bespoke junction calculations.

At gable walls, it is recommended that the insulation be taken up to the underside of the roof verges. However, if a cold roof construction is intended the cavity insulation should extend at least 250mm above the ceiling. The top edge of the insulation should be protected by a cavity tray.

Resistance to Moisture

Timber frame walls require careful detailing to adequately resist moisture.

Masonry outer leaf

Where a masonry outer leaf is detailed the wall is designed and constructed to incorporate the normal precautions against moisture ingress. This requires a 50mm residual clear cavity to be maintained behind the outer leaf of masonry.

Cavity trays, stop ends and weep holes should be detailed appropriately.

A breathable membrane should be provided external to the timber frame.

Cladded walls

A drained and vented cavity should be maintained behind cladding systems on timber framed walls.

A breathable membrane should be provided external to the timber frame.

Where proprietary cladding systems are utilised, they should be installed in line with the manufacturer's guidelines.

Further design guidance can be sought in

England and Wales: Approved Document C2 (a)(b)(c)
Scotland: Technical handbook Domestic and Non Domestic – Mandatory standard 3.10, clause 3.10.5

Condensation

The following design considerations are necessary to minimise the risk of condensation forming on the cold surfaces of the structure. Condensation may occur where water vapour comes into contact with cold surfaces, either within the structure or on the internal face. The formation of condensate over a period of time may cause the timber to decay or lead to other problems such as mould or mildew.

Vapour control layers and air tightness

A vapour control layer is recommended when designing a timber frame wall. It is positioned on the warm side of the insulation. Its main function is to limit the transfer of moisture into the timber frame structure which in turn will minimise the risk of interstitial condensation forming on surfaces on the cold side of the insulation.

It should be detailed at junctions of elements and openings so it is continuous.

The requirement for a vapour control layer should be assessed to BS5250:2011 Control of Condensation.

In the same way, air leakage through gaps or cracks through the timber frame, around thermal bridges and openings allow for heat and moisture transfer.

Penetrations into the internal linings should be limited and those that are essential should be fully sealed. The design of junctions should be detailed in accordance with Accreditated Construction details as mentioned in the previous section.

A condensation risk analysis should be carried out when the element forms the external envelope to an area of high humidity, for example bathrooms or swimming pools. Controlled ventilation may be required to carry moisture outside.

Ventilation

Where a drained and vented cavity maintained behind cladding systems on timber framed walls help dissipate moisture behind a cladding system, it will also prevent interstitial condensation forming on the supporting battens.

Fire

Timber frame walls detailed in accordance with BBA Certificate 09/4667 will provide a fire resistance of 30 minutes (for fire exposure from the inside, when subject to a total imposed load of 60 kN (10 kN load per stud).

Please refer to BBA Certificate 09/4667 for more information.

For more information please contact the Celotex Technical Centre on **01473 820850** or email **technical@celotex.co.uk**

Where a secondary line of insulation is required to give the required U-value, use Celotex GS5000 to the underside of the rafters.

Installation Guidelines

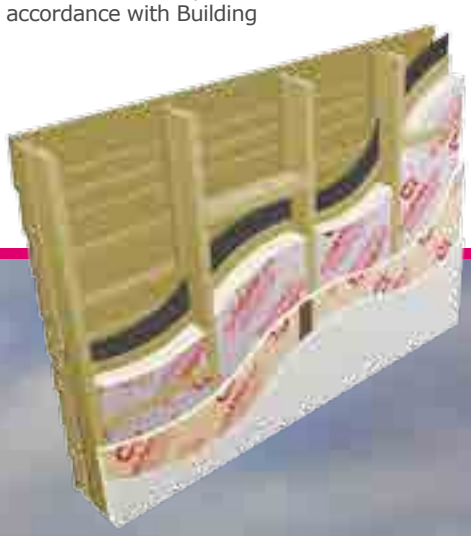
Celotex insulation is used to insulate a timber frame wall in a number of applications. These include Celotex sheathing the frame, fitting in between the frame and lining the frame internally. To achieve lower U-values in line with Regulations it may be necessary to use a combination of these applications. The guidelines below are specific for each application but are used in conjunction with each other to achieve the target U-values.

Celotex sheathing a timber frame wall

- Make sure all studs and rails are flush with no projections and that services are correctly installed to ensure an even substrate to fix Celotex insulation.
- A breathable membrane is fitted over the timber frame externally in accordance with manufacturer's instructions.
- Cut Celotex FR5000 with Celotex insulation saw.
- Temporarily fix Celotex FR5000 to the outside of any OSB or sheathing board using galvanised clout nails at 400mm centres in the centre of the board and at 300mm centres around the perimeter.
- Ensure the Celotex board joints are closely butted and staggered to reduce air movement and heat loss.
- Care must be taken to align the fixings with underlying studs, sole plates and head rails.

External masonry as outer leaf

- The external masonry outer leaf should be tied back to the timber framing using helical stainless steel wall ties, driven through the Celotex insulation into the studs. There should be a minimum of three per square metre and installed in accordance with manufacturer's instructions.
- Restrain the Celotex insulation against the timber using retaining discs on the wall ties.
- It is not recommended to tape together the Celotex Insulation board joints.
- The masonry outer leaf and cavity are constructed in accordance with Building Regulations.



Watermead Business Park, Leicestershire

Ventilated cladding as outer leaf

- A breathable membrane is fitted over the Celotex Insulation. Preservative treated battens are fixed through the breathable membrane and insulation and secured to the wall structure. Ensure fixings are aligned with the underlying studs, sole plates and head rails.
- The external cladding is then installed in accordance with manufacturer's instructions.
- Measure accurately the width of the spacing's between timber stud frame to be filled prior to cutting the board. Ensure there is a tight fit between insulation and studs and rails to minimise air leakage and heat loss.
- Cut Celotex FR5000 with Celotex insulation saw. Where FR5000 is installed between timber frames it is cut to achieve a friction fit.
- Insert Celotex insulation into framing and push back tight up against the sheathing board.
- The small cavity at the front of the frame can be used to run services.
- Position stop battens or nails on the warm side of Celotex insulation to hold it against the sheathing board.
- Fill any gaps with expanding insulation foam and ensure continuity of Celotex.
- Off cuts are used where possible to ensure there are no gaps at wall abutments.
- Where there is no secondary layer of insulation internally a separate vapour control layer with lapped and sealed joints should be installed across the inside face of the studwork before applying the internal finish.

Celotex GS5000 internal lining a timber frame wall

- Where a secondary line of insulation is required internally to give the required U-value, fix Celotex GS5000 across the inside face of the studwork.
- Make sure all studs and rails are flush with no projections and that services are correctly installed to ensure an even substrate to fix Celotex insulation.
- Additional lengths of timber batten should be installed to coincide with horizontal board joints and around services, doors and windows. The framing must provide a minimum of 20 mm bearing to each system at joints and be of sufficient depth to accommodate the fixings for the system.
- The board should be cut approximately 15 mm short of the floor to ceiling height and positioned with the bottom edge resting on packing strips. The boards are placed onto the timber, and alignment checked with the position of the timber batten and chalk lines on the floor and ceiling.
- Once positioned, the board should be lifted to the ceiling edge using a floor lifter and supported with additional packing at the base of the board. The board is fixed to the timber battens using appropriate dry wall screws.
- Fixings should be installed at 300mm centres across the horizontal and vertical length should allow a minimum 25mm penetration of the timber rafter.
- Other boards should be installed closely butted together using the same technique.
- Care should be taken not to overdrive nails / screws.
- Where required to limit thermal bridging and ensure continuity of insulation, line window reveals and door openings with PL4015. Fix a batten around the edge of the opening and scribe the board to fit the opening.
- Fix the board with drywall screws as described above.
- Form the vapour control layer by filling the tapered joint between boards with a jointing compound
- Bed a jointing tape into the compound and apply a final layer of compound to the top. This is then sanded back to give a smooth surface.
- Seal all edges of plasterboard where perimeter edges contact the wall, window openings and service penetrations with a flexible sealant to minimise air movement and reduce air leakage.

Lightweight timber partition walls

- Lightweight timber partition walls are designed to meet the required Regulations.
- When insulating the frame, measure accurately the width of the spacings between timber stud frame to be filled prior to cutting the board. Ensure there is a tight fit between insulation and studs and rails to minimise air leakage and heat loss.
- Cut Celotex FR5000 with Celotex insulation saw. Where FR5000 is installed between timber frames it is cut to achieve a friction fit.
- Insert Celotex insulation into framing and push back tight up against the required sheathing board. The small cavity at the front of the frame can be used to run services.
- Position stop battens or nails on the warm side of Celotex insulation to hold it against the sheathing board.
- Fill any gaps with expanding insulation foam and ensure continuity of Celotex.
- Off cuts are used where possible to ensure there are no gaps at wall abutments.
- Where there is no secondary layer of insulation internally a separate vapour control layer with lapped and sealed joints should be installed across the inside face of the studwork before applying the internal finish.
- Where a secondary layer of insulation is required to meet target U-values, install Celotex GS5000 as outlined above.

General Information

Storage

Celotex insulation boards should be stored dry, flat and clear of the ground. Only as much material as can be installed during a single working period should be removed from storage at any one time. If boards are stored under tarpaulins, care should be taken to prevent rope damage to boards.

Installation

Always install Celotex insulation boards in accordance with the instructions supplied by Celotex.

Celotex insulation boards should not be installed when the temperature is at or below 4°C and falling.

Where possible, cut the product using the Celotex Insulation Saw to minimise dust creation.

When cutting Celotex insulation, dust extraction equipment, eye protection and face masks should be provided. Dust or particles in the eyes should be washed out with liberal quantities of water. If skin is sensitive to fibre irritation, apply a barrier cream to exposed areas before handling.

Handling

Care should also be taken to ensure that packs are not dropped on to corners or edges.

Aluminium foil edges may be sharp. Avoid sliding bare hands along board edges.

Find out more at celotex.co.uk

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Team up with us on LinkedIn

Like us on

Celotex

Insulation Specialists

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SAINT-GOBAIN

Celotex is a Saint-Gobain brand