



FR5000 Steel Stud Framed Wall Applications

Wall Insulation

Celotex
 Insulation Specialists

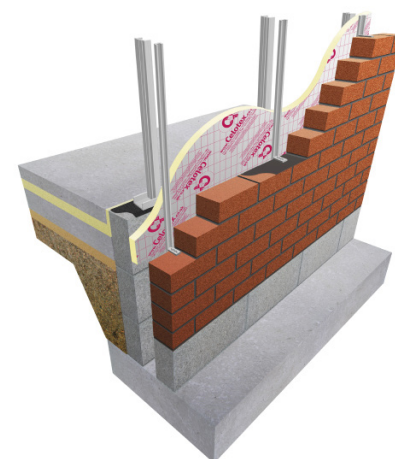
Introduction

Celotex is the brand leading manufacturer of PIR insulation boards, with its range encompassing the thinnest and thickest boards available to the construction industry today. All of the Company's products are manufactured at its plant in Suffolk, from where the dedicated Celotex Technical Centre offers advice and calculations for compliance with current regulations and legislation.

Celotex: We know insulation inside and out.

Use **Celotex FR5000** high performance thermal insulation in steel stud framed wall applications to minimise insulation thickness and give the following benefits:

- Ideal for lightweight, steel framed commercial and industrial buildings
- Provides reliable long term energy savings for buildings
- Low emissivity foil facer gives improved thermal insulation performance within cavity air spaces
- Rapid, accurate construction on site
- Facilitates off-site fabrication of framed panels
- Warm frame construction eliminates thermal bridging through studs
- Thin overall construction depth



Celotex FR5000

Celotex FR5000 Technical Data

Product Code	Thickness (mm)	R-value (m ² K/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

Sustainable Insulation

Celotex PIR insulation has been independently assessed by BRE Global and has been accredited with an A+ rating when compared to the BRE Green Guide.

The results also show that Celotex offers a lower environmental impact than other typical PIR manufacturers.

For further information about Celotex' sustainable insulation solutions, visit the sustainability pages of the website at celotex.co.uk



cont...



FR5000 Steel Stud Framed Wall Applications

Wall Insulation

Celotex
Insulation Specialists

Example U-value Calculation: Steel Stud Framed Walls

Construction	Thickness (mm)	
Outside surface resistance	-	
Brick	103	
Cavity (low emissivity)	50	
Variable layer (over studs)	See below	
Celotex IQ (cavity)	100	
Polythene 1000 gauge, VCL	-	
Plasterboard	12.5	
Plasterboard	12.5	
Inside surface resistance	-	
Variable layer	Thickness (mm)	U-value (W/m ² K)
Celotex FR5000	25	0.35
Celotex FR5000	40	0.28
Celotex FR5000	50	0.24
Celotex FR5000	60	0.22
Celotex FR5000	70	0.20
Celotex FR5000	75	0.19
Celotex FR5000	80	0.18
Celotex FR5000	90	0.17
Celotex FR5000	100	0.16
Celotex FR5000	120	0.14
Celotex FR5000	150	0.12

U-value

For U-values see variable layer list, or for more options, refer to our online U-value calculator at celotex.co.uk

cont...



FR5000 Steel Stud Framed Wall Applications

Wall Insulation

Celotex
Insulation Specialists

Installation Guidelines

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

- Install the steel stud framework in accordance with the manufacturer's instructions.
- For optimum thermal performance, the unprinted foil surface should face the air cavity.
- If necessary, trim the Celotex insulation boards to a width and height to ensure that the edges are fully supported by the frame studs or horizontal runners.
- Trim boards to fit around the window and door openings.
- Place the boards directly against the external face of the steel frame and temporarily fix with suitable self-tapping screws and washers.
- Adjacent boards must be tightly butted to minimise heat loss.
- Where the frame is to be faced with brickwork, place wall tie retaining channels over the boards at stud positions and fix through the insulation into the studs with fasteners as recommended by the channel manufacturer.
- Construct the brickwork facing incorporating twist-in ties at recommended intervals.
- Where cavity fire barriers are required by national building regulations, they should be installed in line with the manufacturer's instructions.

Other cladding

Tile hanging, render finish, weather boarding and other cladding types are all suitable for this type of application. In this situation, Celotex boards can be protected with a breather membrane. However, advice and information on the installation of these cladding systems should be sought from the manufacturer or provider of the cladding system.

Further Information

If you wish to contact Celotex, please visit celotex.co.uk and click on the 'contact us' page.

For information regarding [storage, installation and handling](#) of Celotex products, or for [Health and Safety](#) advice, please refer to the 'literature' pages of the website at celotex.co.uk

Celotex has a policy of continuous product development and reserves the right to alter product designs or specifications without prior notice.

Celotex Limited
Lady Lane Industrial Estate,
Hadleigh, Ipswich
Suffolk IP7 6BA

T: 01473 820850

W: celotex.co.uk

Information is correct at date of publication - August 2013
Registered Office: Saint-Gobain House, Binley Business Park, Coventry, CV3 2TT
Registered In England No 2183896

Celotex Technical Centre: 01473 820850

celotex.co.uk