



FR5000 Timber Frame Wall Lining Applications

Wall Insulation

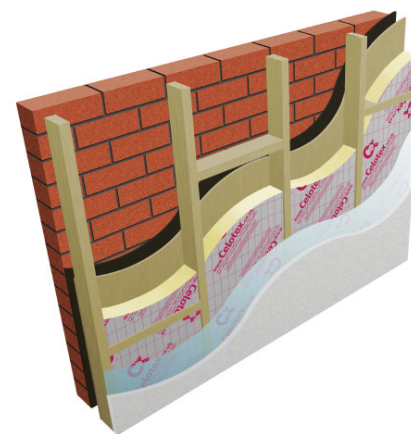
Celotex
 Insulation Specialists

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 timber frame wall lining applications to minimise insulation thickness and give the following benefits:

- Low lambda of 0.021W/mK
- Super low emissivity foil facers give improved thermal insulation performance within cavity air spaces
- Offers the thinnest solution available
- Provides reliable long term energy savings for buildings
- Provides cavity for services



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



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Example U-value Calculation: Timber Frame Wall Lining

Construction	Thickness (mm)	
Outside surface resistance	-	
Brick	103	
Cavity	50	
Plywood	9	
Variable layer	See below	
Celotex IQ between studs 15% brg	5.0 / 10.0 / 15.0 / 20.0 / 25.0	
Polythene 1000 guage, VCL	-	
Plasterboard	12.5	
Inside surface resistance	-	
Celotex Product - Variable layer	Thickness (mm)	U-value (W/m ² K)
Celotex FR5000 between 125 stud (15% brg)	100	0.25
Celotex FR5000 between 150 stud (15% brg)	120	0.22
Celotex FR5000 between 200 stud (15% brg)	150	0.18

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

Installation Guidelines

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

- Make sure all studs and rails are flush, with no projections, and that services are correctly installed.
- Insert insulation into framing and push back to plywood sheathing. Fit services into cavity if required.
- Use the Celotex Insulation Saw to cut the boards to fit tightly between all studs and rails.
- FR5000 rain both sides.
- Use the Celotex Insulation Saw to cut the boards for infill panels, using off-cuts where possible, making sure there are no gaps at wall abutments.
- Ensure that the wall insulation is continuous with the floor perimeter insulation.
- A vapour control layer (VCL) should be installed over the warm side of the studwork.
- Fix plasterboard lining over the VCL using plasterboard nails or screws.

Some building insurance companies may require additional third party approval when using insulation in timber frame applications. Advice should be sought from the relevant parties prior to specifying the insulation required. Celotex insulation is covered by BBA certificate number 09/4667.

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Certifications and Accreditations

Celotex FR5000 is covered by BBA Agreement Certificate No 09/4667. To download a copy of this certificate, visit the 'literature' pages of the website at celotex.co.uk

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.

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