



Concrete Soffit Liner Applications

Premium Soffit Liner Insulation

Celotex
SAINT-GOBAIN

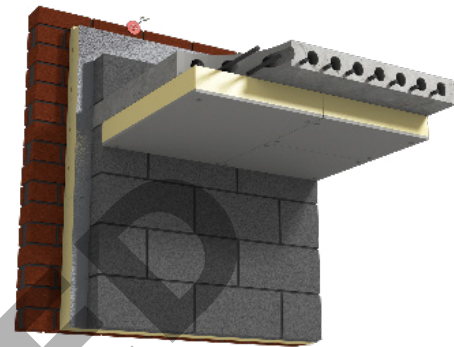
IMPORTANT: On 1 September 2017, this product (among others) was temporarily suspended while we investigate the results of recent tests (Parts 6 and 7 of British Standard 476). In addition, we have recently identified a compliance issue relating to our calculation and testing of the declared lambda value of products in the 4000 and 5000 ranges and the Crown-Bond and Crown-Fix products within the Crown Flat Roofing range. Materials relating to this product are for information only.

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.

Use **Celotex SL5000** PIR insulation in concrete soffit liner applications to minimise insulation thickness and achieve the following benefits:

- A super low lambda value of 0.021 W/mK ensuring regulatory compliance is achieved with minimal insulation thickness
- Combining the PIR properties of Celotex insulation with calcium silicate providing additional fire performance
- Premium performance PIR insulation bonded to calcium silicate, reducing installation time
- Delivers greater impact resistance compared to exposed insulation systems
- Provides a decorative finish with no need for on-site decorating



Celotex SL5000 under concrete soffit

Celotex SL5000 Technical Data

Product Code	Product Thickness (mm)*	R-value (m ² K/W)	Weight (kg/m ²)
SL5086	86	3.85	9.66
SL5096	96	4.30	9.98
SL5106	106	4.80	10.30

*Thickness includes insulation + 6mm calcium silicate board



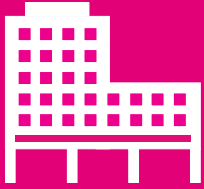
Sustainable Insulation

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: Concrete Soffit Liner

Direct fix to concrete soffit

Construction		Insulation Thickness (mm)	Insulation Thickness (mm)
Inside surface resistance		-	-
Concrete, dense		150	150
Fixing*		Stainless Steel	Thermally Broken
Celotex Product	Insulation Thickness (mm)**	U-value (w/m ² K)	U-value (w/m ² K)
Celotex SL5000	86	0.24	0.24
Celotex SL5000	96	0.22	0.22
Celotex SL5000	106	0.20	0.20

Indirect fix to concrete soffit via treated timber battens

Construction		Insulation Thickness (mm)	Insulation Thickness (mm)
Inside surface resistance		-	-
Concrete, dense		150	150
Cavity (low emissivity) 38 x 50mm timber battens @ 600 ctrs		38	38
Fixing*		Stainless Steel	Thermally Broken
Celotex Product	Insulation Thickness (mm)**	U-value (W/m ² K)	U-value (W/m ² K)
Celotex SL5000	86	0.20	0.20
Celotex SL5000	96	0.18	0.18
Celotex SL5000	106	0.17	0.17

* Stainless steel and thermally broken fixings were used to achieve these U values. U value may vary depending on the type of fixing specification. For project specific U value calculations, please contact the Celotex Technical Centre.

**Thickness includes insulation + 6mm calcium silicate board



The Online Celotex U-value Calculator allows you to specify your desired U-value before immediately calculating the required insulation thickness & product solution. Quick & easy to use, visit celotex.co.uk to find out more

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Installation Guidelines

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

Installation guidelines for direct fixing to concrete soffit

- Ensure that the cavity wall insulation is continuous past the soffit liner insulation to avoid thermal bridging.
- It is recommended that the Celotex insulation boards are tightly butted to minimise heat loss through insulation gaps, to ensure that a professional finish is achieved. Continuity of butted insulation (inc. 6mm calcium silicate) is crucial in creating an effective fire barrier.
- Directly fix Celotex SL5000 to concrete soffit.
- Fixings should be installed 50mm (minimum) from the edge and corners of the board with a minimum of 12 fixings per 1200mm x 2400mm board (see diagram 1). Suitable fixings should comprise a screw type suitable for the concrete deck into which it is being driven, combined with a circular or rectangular plate washer having a diameter of no less than 25mm. Advice on suitable fixings should be sought directly from the fixing manufacturer.

Installation guidelines for indirect fixing to concrete soffit via treated timber battens

- Ensure that the cavity wall insulation is continuous past the soffit liner insulation to avoid thermal bridging.
- It is recommended that the Celotex insulation boards are tightly butted to minimise heat loss through insulation gaps, ensuring a professional finish is achieved. Continuity of butted insulation (inc. 6mm calcium silicate) is crucial in creating an effective fire barrier.
- Use timber battens treated to BS 5268: Part 5.
- Directly fix SL5000 and 38mm x 50mm timber fixing battens to concrete soffit. The timber battens should be fixed above the layer of Celotex insulation. (Ensure that the timber fixing battens are secured at maximum 600mm centres and that the fixings through into the concrete soffit are nominal 400mm centres).
- Fixings should be installed 50mm (minimum) from the edge and corners of the board with a minimum of 12 fixings per 1200mm x 2400mm board (see diagram 1). Suitable fixings should be used combined with a circular or rectangular plate washer having a surface area of no less than 25mm. Insulation fixings should penetrate the timber battens by 30mm. Please refer to manufacturer's recommendations. Advice on suitable fixings should be sought directly from the fixing manufacturer.

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.

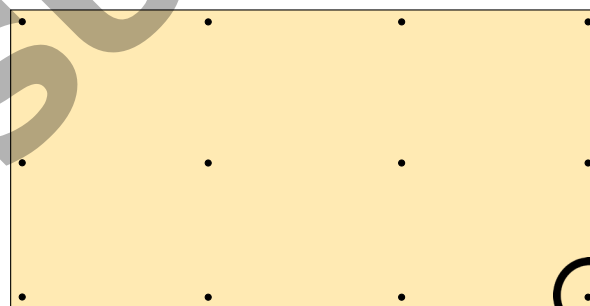


Diagram 1 Fixing Centres

Minimum 50mm