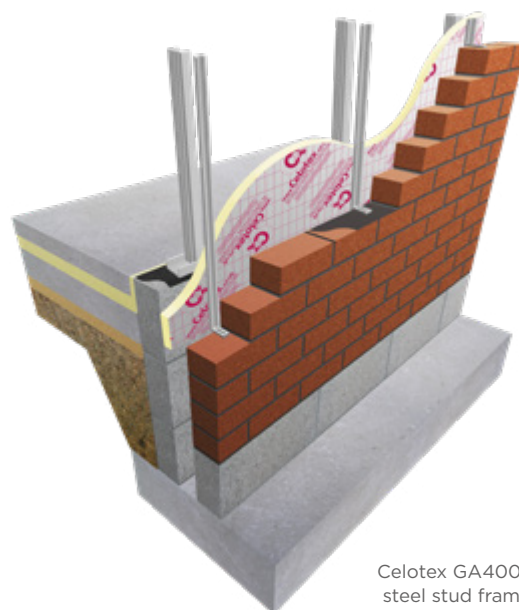


Use [Celotex GA4000](#) and [Celotex XR4000](#) high performance thermal insulation in [steel stud framed wall](#) applications below 18m to minimise insulation thickness and give the following benefits:

- Offers some of the thinnest solutions available
- Provides reliable long term energy savings for buildings
- Low emissivity foil facers give improved thermal insulation performance within cavity air spaces
- Provides a cavity for services



Celotex GA4000 in a steel stud frame wall

Celotex GA4000 Technical Data

Thickness (mm)	R-value (m ² K/W)	Maximum Board Weight (kg/m ²)
GA4050	2.25	1.92
GA4060	2.70	2.26
GA4070	3.15	2.61
GA4075	3.40	2.78
GA4080	3.60	2.96
GA4090	4.05	3.31
GA4100	4.50	4.15

Celotex XR4000 Technical Data

Thickness (mm)	R-value (m ² K/W)	Maximum Board Weight (kg/m ²)
XR4110	5.00	4.54
XR4120	5.45	4.93
XR4130	5.90	5.32
XR4140	6.35	5.71
XR4150	6.80	6.10
XR4165	7.50	6.69
XR4200	9.05	8.06

For product information for your project, please contact either our [technical team](#) or our [specification team](#).



We have an experienced team of energy assessors who can carry out SAP calculations, water calculations, airtightness testing and much more. [Contact us](#).



Celotex presents a comprehensive range of thermal bridging models featuring our PIR insulation products. This tool helps you identify the build-up required to reduce heat loss through a typical junction of elements or at openings. [Sign up now](#).

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	
Polythene 1000 gauge, VCL	-	
Cement based particle board	12	
Cavity between studs	100	
Plasterboard	12.5	
Inside surface resistance	-	
Variable Layer	Thickness (mm)	U-value (W/m ² K)
Celotex GA4000	50	0.28
Celotex GA4000	60	0.25
Celotex GA4000	70	0.23
Celotex GA4000	75	0.22
Celotex GA4000	80	0.21
Celotex GA4000	90	0.19
Celotex GA4000	100	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.

- 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.

Not for use in buildings with a storey height above 18m.

Following the Independent Review of Building Regulations and Fire Safety (the Hackitt review), the UK government is considering changes to the Building Regulations. You should consult your building designer and Building Control Officer before specifying any particular product.

Typical U-values

U-values will vary depending on application. To calculate a specific U-value, please visit our online calculator at celotex.co.uk

Installation guidelines

Installation of Celotex GA4000 and XR4000 will depend on application type. For installation details please refer to our online ['applications'](#) pages.

Further information

If you wish to contact Celotex, please do so through the ['contact us'](#) page on our website.

For information regarding storage, installation and handling of Celotex products, or for health & safety information, please refer to our online ['literature'](#) pages.

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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