

CEMBRIT

Building boards

Product and application selection guide





Building boards



Cembrit is a leading supplier of a range of high performance building boards for specialist applications that often cannot be met by commonly used gypsum or wood building boards.

Although largely unseen, these boards are amongst the most fundamental components of modern construction. Cembrit boards have been used in many prestigious and large scale applications across a range of sectors.



Unity College, Towneley Park, Burnley, Lancashire



With many years of manufacturing experience, broad knowledge of building techniques and requirements, Cembrit is well placed to identify products to supplement its range of specialist building boards to fulfil the requirements of designers, installers and stockists.

External or Internal

Cembrit's range includes tough, weather resistant boards such as Cembrit HD which can be left exposed as well as versatile Multi Force an ideal internal board which can be decorated, is hard wearing and non combustible.

Installers and designers

From Cembrit Multipurpose, which is easy to cut and drill yet tougher than most boards commonly used for partitioning, to 60 minute fire rated Cembrit Windstopper Extreme, you will find a building board to match you performance and budgetary requirements.

Cembrit boards are straightforward to cut and fix and easily accessible for installers.



External applications



Sheathing



Acoustic



Render carrier/backer



Roofline Soffits



Cladding



Off site panels and SIPS



Fascia, soffit, bargeboard, undercloak

Windstopper Extreme	✓			✓		✓	
Windstopper Basic	✓						
Cembrit HD				✓	✓	✓	✓
Cembrit PB			✓			✓	
Cempanel	✓	✓				✓	
Cembrit Multi-purpose		✓		✓		✓	✓



- 1** Cembrit PB
- 2** Cembrit Multi-Purpose
- 3** Cembrit HD
- 4** Windstopper Extreme
- 5** Cembrit Multi Force
- 6** Cembrit Cempanel
- 7** Cembrit Unipan

Internal applications



Building fabric lining



Partitions



Ducting



Sub floors



Ceiling linings



Tiled areas



Interior soffits



Fire rated systems

Cembrit Multi Force	✓	✓	✓		✓			✓
Cembrit HD		✓					✓	
Cembrit PB								✓
Cembrit Unipan						✓		✓
Cembrit Multi-purpose		✓			✓		✓	✓
Cempanel				✓				

✓ Primary use

Windstopper Extreme

Cembrit Windstopper Extreme is a non-combustible, breathable sheathing board with a fire rating tested up to 120 minutes. The board consists of grey cement and limestone filler, reinforced with a specially selected fibre material that can absorb and release moisture without affecting durability, strength or performance.

Cembrit Windstopper Extreme has a very low vapour transmission resistance, enabling moisture from inside the building to pass through. This means that insulation can be placed directly against the inner side of the board. When installed according to Cembrit instructions, Windstopper Extreme will function as a temporary facade for up to 12 months. The lightweight 4.5mm thick version can be scored and snapped making for quick dust free on site cutting. It is ideal for temporary weathersealing of buildings awaiting the completion of external elements.

The board is highly resistant towards both rot and fungal growth and can withstand considerable fluctuations in weather and climate conditions.

Windstopper Basic is a similar composition to Windstopper Extreme and can be used in similar applications but can only be left exposed for 6 months and its fire rating has been tested up to 60 minutes.

Features and benefits

- High density material
- High impact resistance
- Fire rating: Class A2 to EN 13501-1
- Can be pressure washed
- Suitable backer for laminates
- Can be used in composite panels

Natural grey



Windstopper Extreme Technical data

Thickness (mm)	4.5	4.5	4.5*	9	9	9
Dimensions† (mm)	1200 x 2400	1200 x 2700	1200 x 3000	2400 x 1200	2700 x 1200	3000 x 1200
Average racking strength* (EN 594) kN	3.32 (fixings at edges/centre 200/ 300mm)			6.33 (fixings at edges/centre 100/ 150mm)		
Weight per sheet (kg)	21.89	24.62	27.4	41.47	46.66	51.84
Weight per m ² (kg)	7.6	7.6	7.6	14.4	14.4	14.4
No. sheets per pallet	70	70	70	45	40	35
Bending strength (MPa)	16	16	16	12.2	12.2	12.2
Density (kg/m ³)	1600	1600	1600	1425	1425	1425
Modulus of elasticity (GPa)	3.35	3.35	3.35	4.6	4.6	4.6
Fire rating A2-s1, d0	BS EN 1364: 2015, EN 13501-1			EN 13501-2 K1 10 and K2 10		
Water absorption % by weight/48 hours	19.90 EN12467			22.34 EN12467		
Thermal conductivity K value	0.5W/mK					
Biological resistance	No growth					
Guarantee	15 years durability					
Accreditation	EN 12467: 2012 NT D31					

Installation

4.5mm thick can be scored and snapped requiring no dust extraction. 9.0mm thick cutting to size may be done with normal slow or fast-running hand tools or stationary equipment. When using fast running tools dust extraction must be employed. All Cembrit boards may be cut with a circular saw or a jigsaw equipped with a diamond tipped blade. Sharp edges are made with fast-running diamond tipped tools. Cut edges should be bevelled with sand paper.

* Racking strength test board size 1200 x 2400mm

† Other sizes available to order based on minimum quantities

Windstopper Basic Technical data

Thickness (mm)	9	9	9
Dimensions† (mm)	2400 x 1200	2700 x 1200	3000 x 1200
Weight per sheet (kg)	39.46	44.39	49.32
Weight per m ² (kg)	13.7	13.7	13.7
No. sheets per pallet	45	40	35
Bending strength (MPa) 11	11	11	11
Density (kg/m ³)	1450	1450	1450
Modulus of elasticity (GPa)	3	3	3
Fire rating A2-s1, d0	EN 13501-2 K1 10 and K2 10		
Water absorption % by weight/48 hours	21%	21%	21%
Thermal conductivity K value (W/mK)	0.5	0.5	0.5
Biological resistance	No growth		
Accreditation	NT D31		

Typical applications



Fire rated partitions and systems

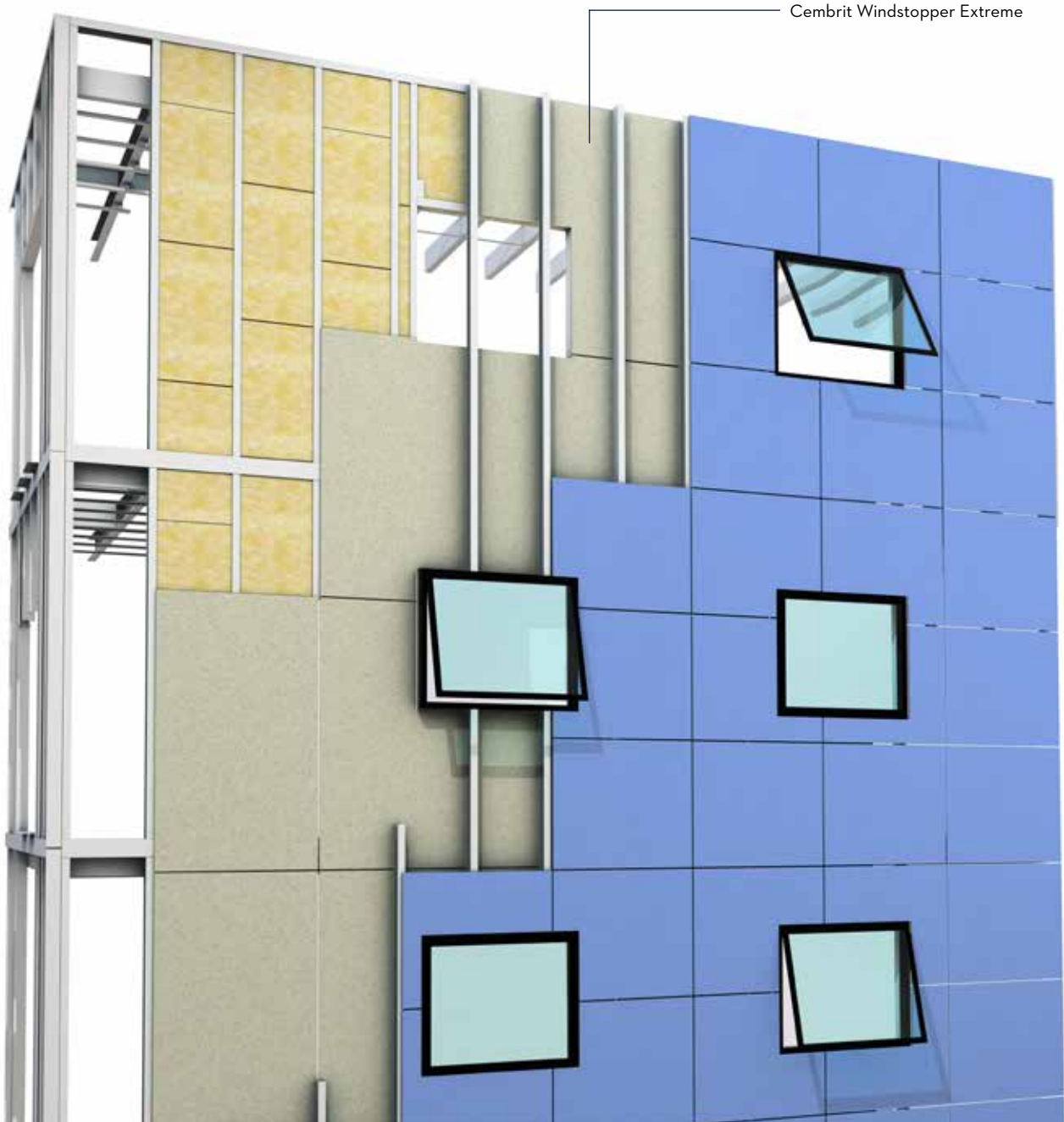


Sheathing



Roofline soffits

Windstopper Extreme used in a fire rated sheathing application



VTT fire test



Cembrit Multi Force

A1 fire rated Cembrit Multi Force (FR) board is the ideal solution for heavy traffic and communal areas where a fire resistant structure is required.

The boards have a unique surface that is resistant to moisture, impact and is therefore suitable for heavy-duty use. The surface is easy to paint, treat with other finishes and is easy to clean. Cembrit Multi Force boards are sound absorbent, non-combustible, and resistant to both rot and mould, making Cembrit Multi Force popular for use as partition walls and ceilings.

Features and benefits

- Fire rating: Class A1 to BS EN 13501-1:2002 and 13501-2:2003
- Up to 120 minutes fire resistance
- Up to 50 db acoustic performance
- High impact resistance
- Easy to clean
- Ideal for internal applications

Typical applications



High impact internal and non-combustible partitions



Ceiling linings



Ducting and lift shafts



Lining corridors, hallways, landings, stairwells

Technical data

Thickness (mm)	9	12
Average racking strength (EN 594)	(EN 594) kN 7.67 (fixings at edges/center 200/300m) per 1200x2400mm board. kN 8.28 (fixings at edges/centre 200/300m) per 1200x2400mm board.	
Dimensions† (mm)	2550 x 1200	2550 x 1200
Weight per sheet (kg)	29.7	39.8
Weight per m ² (kg)	9.7	13.0
No. sheets per pallet	45	30
Bending strength (MPa)	10	10
Impact resistance	Can be used in easily accessible areas according to ETAG 034/ISO 7892	
Density (kg/m ³)	1150	1150
Modulus of elasticity (GPa)	4	4
Fire rating	BS EN 13501-1: 2002 and BS EN 13501-2: 2003, BS 476 Part 4 1970. K ₂ 10 and K ₁ 10 covering performance according to EN 1363-1:2012	
Water absorption % by weight/48 hours	EN12467 32	EN12467 32
Thermal conductivity K value	0.25W/mK	0.25W/mK
Biological resistance	No growth	
Guarantee	15 years durability	
Accreditation	EN 12467: 2012 NT C21	
Installation	Cutting to size with slow running (2000 rpm) circular saw. Sharp edges are made with fast running diamond tipped tool. Can support fixing of items such as shelves and cabinets without reinforcing.	
† Other sizes available to order based on minimum quantities		

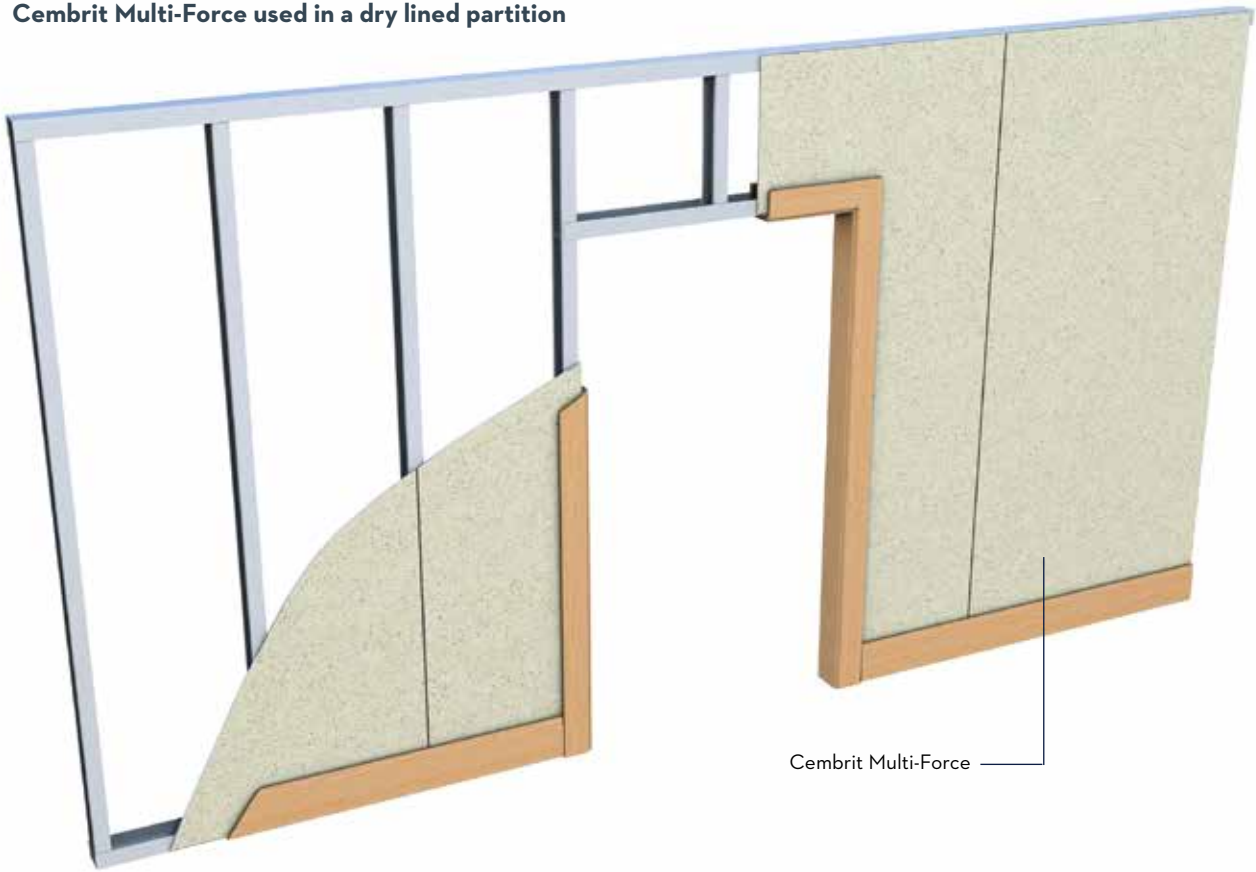
Natural grey



Multi Force in commercial application



Cembrit Multi-Force used in a dry lined partition

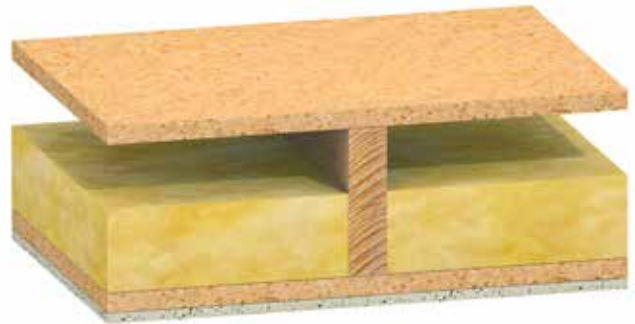


Typical fire-rated details



REI 60 F2: Timber floor without insulation – 60 minutes fire resistance

For full specification, see balconies, ceilings and floor structures in the Multi Force Installation Manual.



REI 30 F1: Timber floor with mineral wool insulation – 30 minutes fire resistance

For full specification, see balconies, ceilings and floor structures in the Multi Force Installation Manual.



EL 120: Timber stud partition with 2 layers of mineral wool insulation (min density of 28kg/m³) – 120 minutes fire resistance.

For full specification, see structure W24a in the Multi Force Installation Manual.



EI 60 S15a: Metal stud partition with single layer of mineral wool insulation – 60 minutes fire resistance

For full specification, see structure S15a in the Multi Force Installation Manual.

Cembrit HD

Cembrit HD is an uncoated, untreated, natural grey homogeneous fibre-cement cladding sheet with a cementitious appearance.

The sheets are durable, dimensionally stable, impact resistant and are easy to work with.

The material withstands extreme climates, resists rot and fungus, and is composed of natural materials. Cembrit HD combines value for money with environmental awareness – ideal for contemporary building.

Cembrit HD can be used uncoated in exposed situations such as rainscreen claddings. It can also be used as a baseboard for decorative coatings or veneers and is tough enough to withstand impact, abrasion and even jet washing.

Cembrit HD is supplemented by a complete range of accessories to ensure simple, easy installation and can be used as a high quality building board, or as a part of a ventilated facade solution.

Features and benefits

- High density material
- High impact resistance
- Fire rating: Class A2 to EN 13501-1:2005
- Can be pressure washed
- Suitable backer for laminates
- Can be used in composite panels

Technical data

Thickness (mm)	3.2	6	8	10
Dimensions (mm)	2440 x 1218	2500 x 1250	2500 x 1250	2500 x 1250
Weight per sheet (kg)	18.13	34.06	44.04	51.25
Weight per m ² (kg)	6.1	10.9	14.6	18.2
No. sheets per pallet	70	50	40	30
Bending strength (average MPa)	17	17	17	17
Density (kg/m ³)	1675	1675	1675	1675
Modulus of elasticity (GPa)	7	7	7	7
Fire rating	EN 13501 A2			
Water absorption % by weight/48 hours	EN12467 12			
Thermal conductivity K value	0.4W/mK			
Biological resistance	No growth			
Guarantee	30 years durability			
Accreditation	EN 12467: 2012 NT A 3I			

Installation

Cutting to size may be done with normal, slow or fast-running hand tools, or stationary equipment. When using fast-running tools, dust extraction must be employed. All Cembrit boards may be cut with a circular saw or a jigsaw equipped with a diamond tipped blade. Sharp edges are made with fast-running diamond tipped tools. Cut edges should be bevelled with sand paper.

Typical applications



Partitions, internal walls and high impact areas



Internal or semi-exposed soffits



Cladding

Natural grey



Enclosures, stockades and shelters

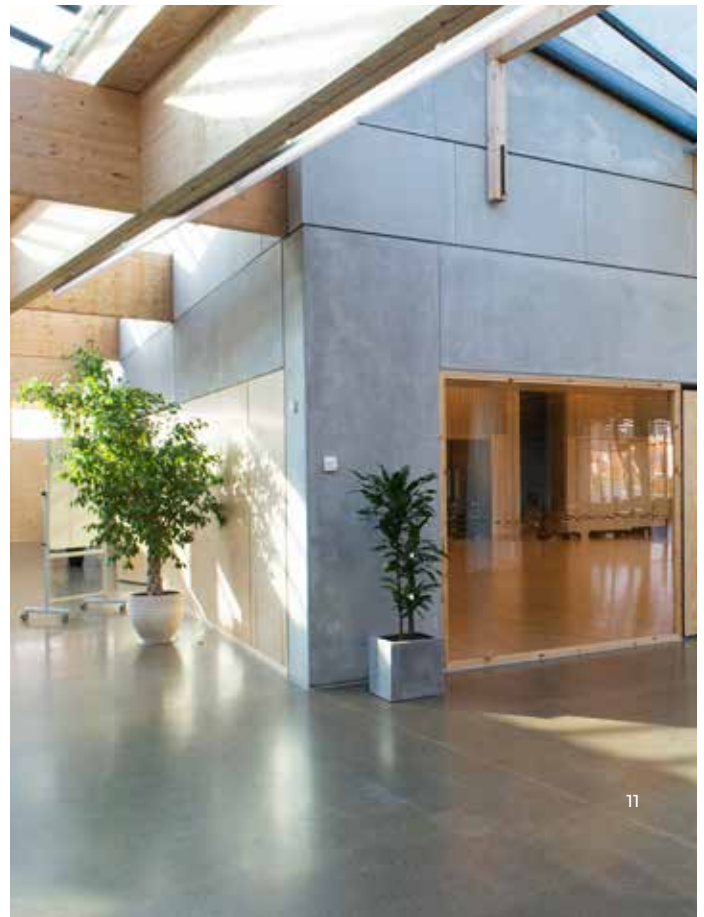
Cembrit HD used as external cladding



CEMBRIT HD
Internal/external walls



Areas of heavy traffic and potential for regular impact



Cembrit PB

Reinforced, lightweight, water resistant cement board with tapered edges to facilitate invisible butt joint installation. Ideal for use on external applications, such as rendering, brick slips or stone cladding.

Features and benefits

- Weather resistant
- Reinforced tapered edges
- Lightweight
- Low linear variation
- High flexural strength
- Fire rating: Class E1 to EN 13501-1:2005
- Resistant to mould and fungus
- Butt jointed
- Approved for use with all leading renders

Typical applications



Render backer and backer for brick slips



Fire rated systems



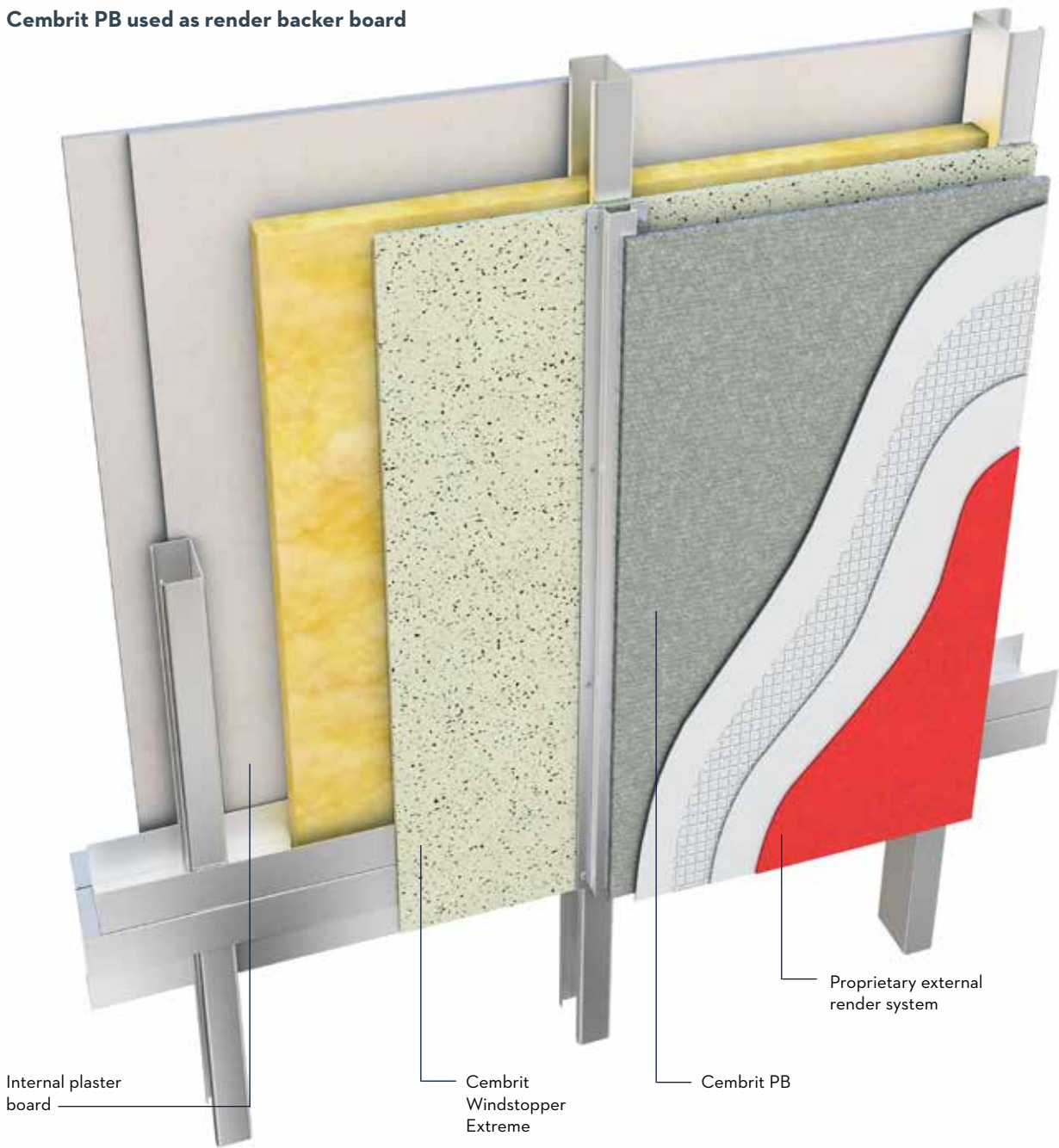
Partition systems

Technical data

Thickness (mm)	9	12
Dimensions (mm)	1200 x 2400	1200 x 2400
Weight per sheet (kg)	31.10	41.47
Weight per m ² (kg)	10.80	14.6
No. sheets per pallet	40	36
Density (kg/m ³)	1200	1200
Modulus of elasticity (GPa)	0.4	0.4
Fire rating	EN 13501-1: 2005: E A1	
Water absorption % by weight/48 hours	ASTM C 473 -8	
Thermal 'R' K value	0.2 - 2.7W/mK	
Biological resistance	No growth ASTM G21, ASTM 03273	
Guarantee	12 years durability	
Accreditation	Low linear variation, high flexural strength and high resistance to mould and fungus when tested to ASTMs	
Installation	Score and snap. Can be screwed close to board edges.	



Cembrit PB used as render backer board



Cembrit Multi-Purpose

Cembrit Multi-purpose is a versatile, autoclaved class A1 board which is easy to work with and has good impact resistance. Autoclaving increases density and dimensional stability. It is stronger than plasterboard and can be used externally.

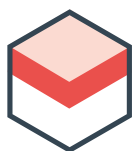
A general purpose building board, typically used for dry-lining and partitions, Cembrit Multi-purpose can be cut to size for all forms of panels and strips.

Can be painted without any special priming using an alkali-resistant paint or emulsion.

Features and benefits

- Easy to work
- Can be sawn, planed, routed, screwed or nailed with common hand and power tools
- Fire rating: Class A1 to EN 13501-1:2007
- High impact resistance
- Suitable carrier for mineral or polystyrene insulation as well as alkali resistant or emulsion paint.

Typical applications



Roof linings, fascias and bargeboards



Acoustic applications



External roofline soffits



Internal or semi-exposed soffits



Ceiling linings



Partitions

Technical data

Thickness (mm)	4.5	6	6	9	12
Dimensions (mm)	2400 x 1220	2400 x 1200	2440 x 1218	2440 x 1218	2440 x 1220
Weight per sheet (kg)	18.0	24.2	25.14	43.59	60
Weight per m ² (kg)	6.05	8.4	8.4	14.64	20.83
No. sheets per pallet	80	60	60	43	30
Bending strength (MPa)	19	19	19	19	19
Density (kg/m ³)	1300	1300	1300	1300	1300
Modulus of elasticity (GPa)	4	4	4	4	4
Fire rating	EN 13501-1: 2007 Class A1				
Water absorption % by weight/48 hours	EN12467 32				
Thermal conductivity K value	0.3W/mK				
Biological resistance	No growth				
Guarantee	15 years durability				
Accreditation	EN 12467: 2004				

Installation

Sawn, drilled, planed, routed, nailed or screwed with woodworking tools. Fixing to studwork at max 600mm centres - countersunk steel or galvanised self-tapping screws 3.5mm-4.2mm diameter, 2.5 to 3 times board thickness. Fixed minimum 50mm from board edge at 200mm centres.



Cembrit Multi-Purpose used in an internal or semi-exposed soffit/ceiling application

Cembrit Cempanel

Cembrit Multi-Purpose



Natural grey



Cembrit Unipan

Showers, bathrooms and wet rooms are generally finished with ceramic tiles as they are easy to clean and stop the build-up of mould and rot. Water in the form of vapour, can still permeate through the wall covering and damage the supporting structure behind.

Cembrit Unipan is strong and dimensionally stable, key characteristics for rooms with large fluctuations in humidity and temperature. The combination of low weight and 900mm length makes Cembrit Unipan easy to handle in confined spaces.

As well as offering a defence against damage from damp, it inhibits mould growth, achieving the highest ratings for resistance to fungus according to ASTM G 21 (no growth) and in laboratory tests to ASTM D 3273 mould growth on surface (score of 10).

Features and benefits

- Damp resistant
- Mould resistant
- Fire rating: E A1 to EN 13501-1:2005
- Resistant to fungus
- Strong and dimensionally stable
- Small panel sizes are easy to work with
- Can be butt jointed with fixings close to the edges

Technical data

Thickness (mm)	12
Dimensions (mm)	900 x 1200
Weight per sheet (kg)	15.55
Weight per m ² (kg)	14.4
No. sheets per pallet	50
Bending strength (MPa)	>5
Density (kg/m ³)	1200
Modulus of elasticity (GPa)	0.4
Fire rating	EN 13501-1: 2005: E A1
Water absorption % by weight/48 hours	ASTM C 473 <8
Thermal 'R' K value	0.2 - 2.7W/mK
Biological resistance	No growth ASTM G21, ASTM 03273
Guarantee	12 years durability
Accreditation	Low linear variation, high flexural strength and high resistance to mould and fungus when tested to ASTMs
Installation	Score and snap. Can be screwed close to board edges.

Typical applications

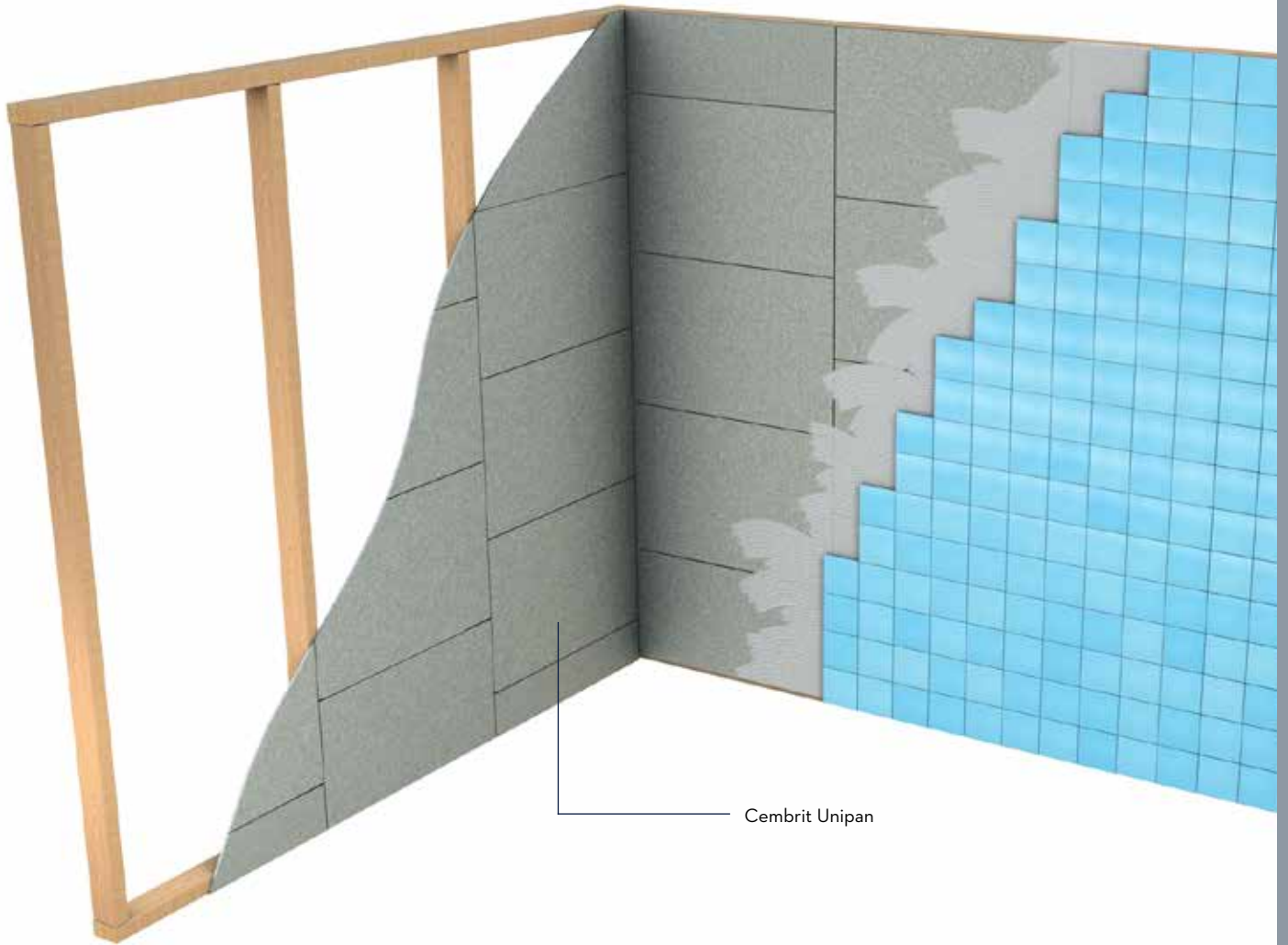


Tile backer board

Natural grey



Unipan used as a tile backer board



Cembrit Cempanel

Cempanel (cement particle board) is superior to timber and plasterboard panel products when used as internal linings on rainscreen cladding projects (sheathing), baseboard for EWI, general purpose external boarding, floors or studwork interior walls. Cempanel is both stronger and less absorbent than timber and plasterboard. The high cement and alkaline content also resists insect and fungal attack.

Features and benefits

- Fire rating: Class B (reaction to fire) BS 476 part 6 & 7, up to 4 hours fire rating to BS 476 part 22.
- High impact resistance
- Good acoustic performance
- Excellent manufacturing tolerances
- Requires no wet trades
- Ideal for off-site or modular construction
- Resistant to mould and fungus

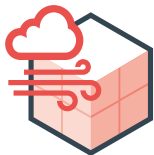
Technical data

Thickness (mm)	8	10	12	16	18	20	24
Dimensions (mm)	1200 x 2400						
Weight per sheet (kg)	29.95	37.44	45.1	59.8	66.24	74.88	89.86
Weight per m ² (kg)	10.4	13.0	15.6	20.8	23.0	26.0	31.2
No. sheets per pallet	56	45	37	28	25	22	18
Bending strength (MPa)	9-12	9-12	9-12	9-12	9-12	9-12	9-12
Density (kg/m ³)	1100-1300	1100-1300	1100-1300	1100-1300	1100-1300	1100-1300	1100-1300
Modulus of elasticity (N/mm ²)	3000	3000	3000	3000	3000	3000	
Fire rating	BS 476 Parts 6 and 7 - Class 0						
Water absorption % by weight/24 hours	<2						
Thermal conductivity K value	<0.125W/m ² C						
Biological resistance	No growth						
Guarantee	15 years durability						
Accreditation	BS EN634 Parts 1 and 2						

Installation

Cut using tungsten carbide tipped blades at 3000-4000r.p.m. Finish with hand held hardwood sander, conventional woodworking tools and fixings. Create a sealed gap between boards if used as a render carrier.

Typical applications



Sheathing



Acoustic insulation systems



Off-site, modular, timber frame and SIPS systems

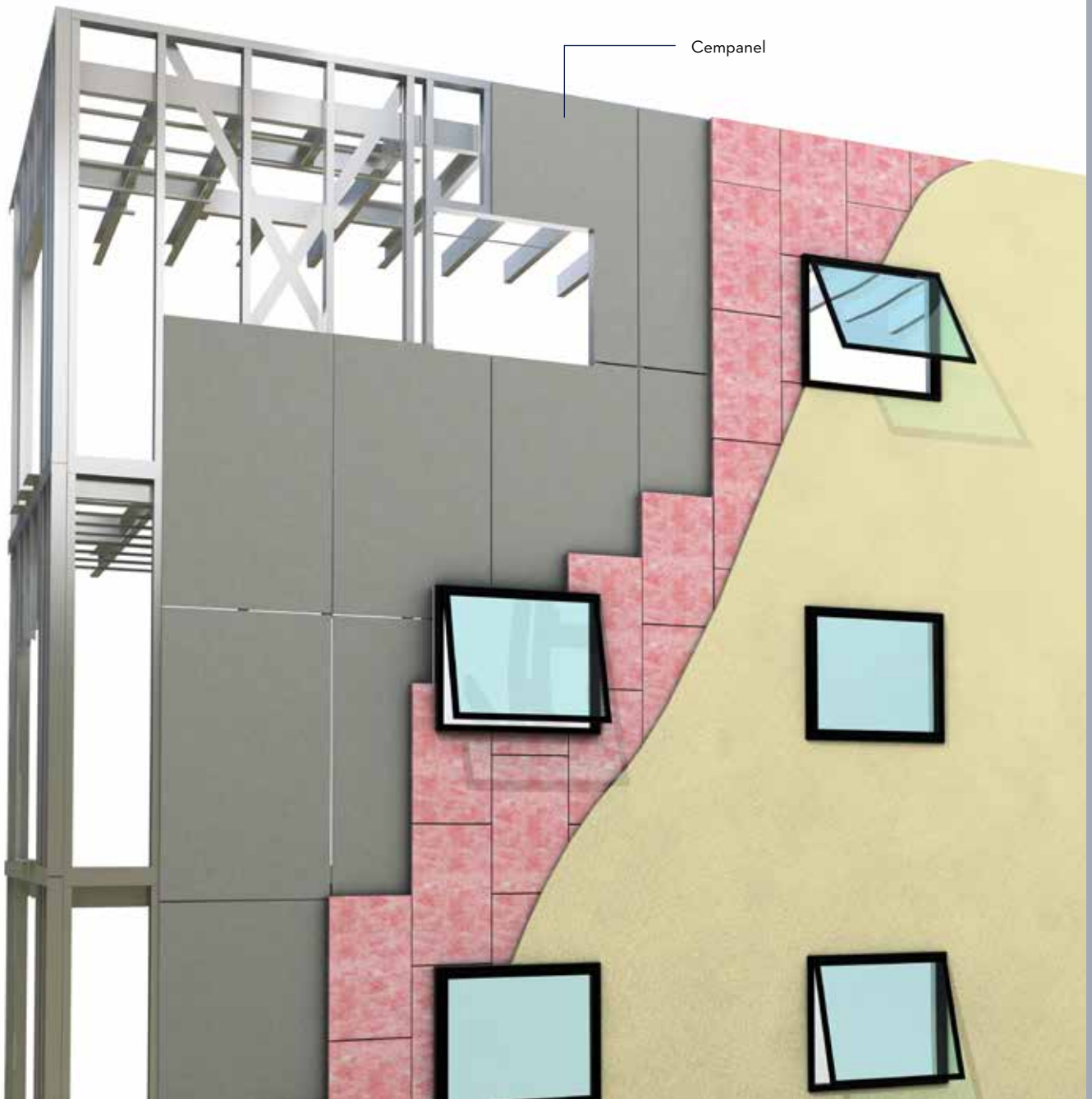


Render backer



Flooring and sub floors

Cempanel used as a baseboard for insulated render systems



Storing and handling of Cembrit products

Cembrit products are delivered with plastic protection. If undamaged the plastic cover provides good protection against weather during transportation.

Transport and warehousing

Cembrit products should ideally be stored in dry conditions under cover and always on a flat and dry, level surface on pallets or timbers at max 500 mm centres.

Stacking pallets

Flat boards: max 5 pallets.

Note: If stored more than 2-3 weeks, the pallets should be kept inside in dry, ventilated conditions.

On site

The plastic cover is for dust protection only. If, on arrival on site, the pallets are to be stored outside, the plastic cover should be removed and replaced with a tarpaulin permitting ventilation of the products.

If to be stored more than 2-3 weeks, the pallets should be kept inside in dry, ventilated conditions.

Lifting products off pallet

The products must be lifted upwards off the pallet and not slid across the board below, as this can cause scratches and damage to the surface of the board.

Boards should be carried by 2 people on their long edge to avoid bending. Keep the pallets covered with a tarpaulin during storage.

Cutting boards

When using hand tools, the boards should be cut with the bottom face uppermost.

When using stationary saw equipment, the boards should be cut with the top face uppermost (the saw blade must always approach the board from the top face).

The periphery speed of the circular saw should be 40-50 m/s. Cutting depth 10-15 mm beyond the board.

Holes are drilled through the top face with a hard metal drill at 1500 rpm. Always place a layer beneath the Cembrit boards - e.g. woodchip - to achieve neat drilling holes.

Cembrit recommends carbide tipped saw blades.



Other Cembrit ranges

Glendyne natural slate

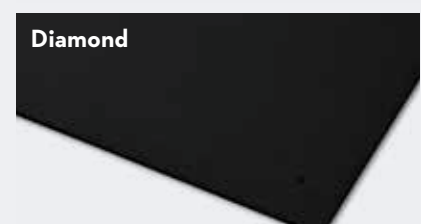
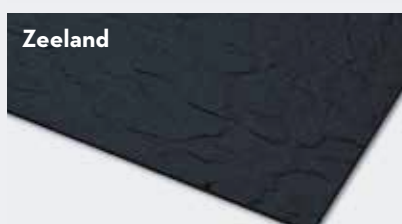
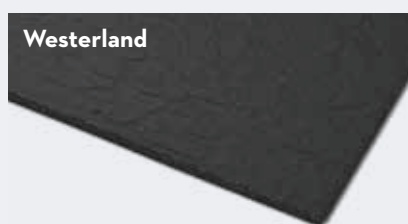
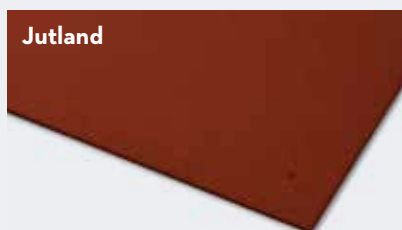
Best quality natural slate, guaranteed and with multiple international accreditations.

Popular on listed buildings and where Festinniog Welsh slate (which is no longer available) is specified.



Fibre cement slate

Lightweight, easy to cut and fix with hand tools, no need for dust suppression – fibre cement slates are more natural looking than concrete tiles yet faster to install than natural slates.



Other Cembrit ranges

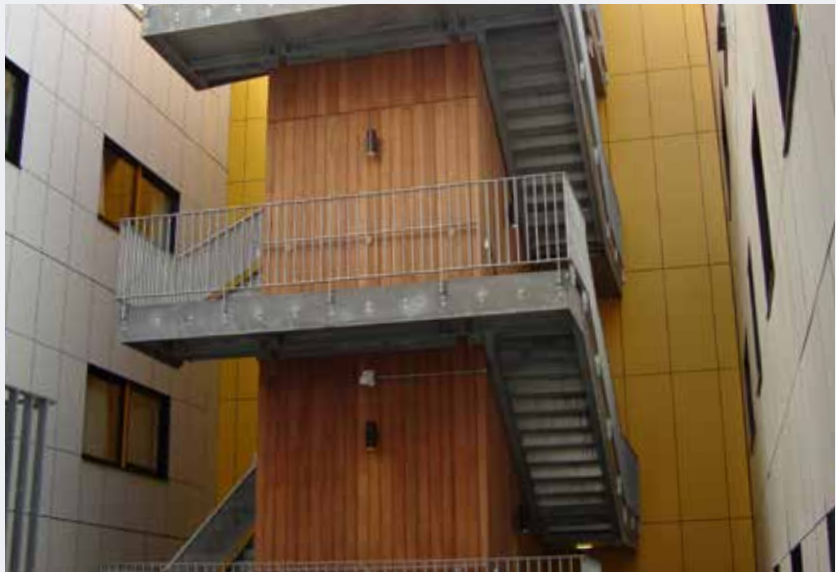
Rainscreen cladding

Cembrit offers four compositions of rainscreen cladding in a total of 61 colour options to provide a beautiful and durable facade to any building.

Cembrit Solid



Cembrit Cover



Cembrit Patina



Cembrit Transparent



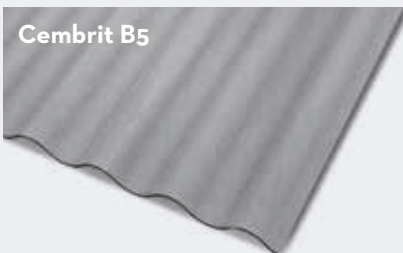
Corrugated sheet

Cembrit offers two corrugated sheet profiles to suit commercial, large agricultural, industrial and smaller equestrian or domestic applications.

Cembrit Cemsix



Cembrit B5



Plank

Cembrit Plank is the ideal alternative to timber weatherboarding, but does not require preservative treatment and is not susceptible to fire. Smooth or textured options give you the choice of surface finish together with a colour to make your projects almost unique.



Service

Complementing Cembrit's product knowledge is our commitment to serving the needs of all those in the supply chain whose role is getting the materials onto the building. Excellent products are no use if they are unavailable.

Cembrit's service philosophy is best exemplified by its 3 depots around Britain from which deliveries can be made with minimum lead times.

Distributors and stockists will find it cost effective to order a selection of Cembrit boards to be delivered together supplementing purchases of specialist boards with multi-purpose panels to maximise haulage efficiencies.



- Local distribution
- Three stock locations
- Cembrit guarantee for all products
- Specialist and general purpose building boards
- Accreditations available on request
- Boards tried and tested in demanding climatic conditions
- Decorative rainscreen claddings available
- Full range of compatible and integrated accessories

The information contained in this publication and otherwise supplied to users of the company's products is based on the company's general experience, best knowledge and belief. However, because of factors beyond the company's knowledge and control, which can affect the use of the products, no warranty is given or implied with respect to such information.

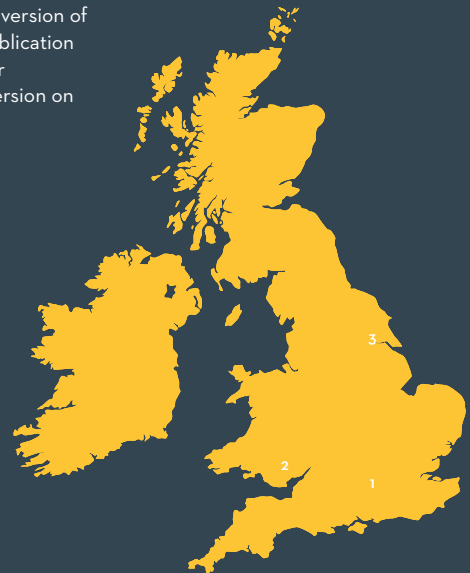
The company's policy is one of continuous improvement. Cembrit Limited therefore reserves the right to alter specifications at any time and without notice.

As with all manufactured materials, colours and textures of building boards and accessories may vary according to light and weather conditions. It is advisable to ask for samples of sheets prior to specification and purchase. Owing to this and limitations of the printing process, colours in this brochure may only be taken as indicative.

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Branch listings

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3 Normanton	T +44 (0)1924 890890 sales@cembrit.co.uk



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