

Cladding

Cembonit





Cembrit Cembonit

Through-coloured cladding with attractive matt finish

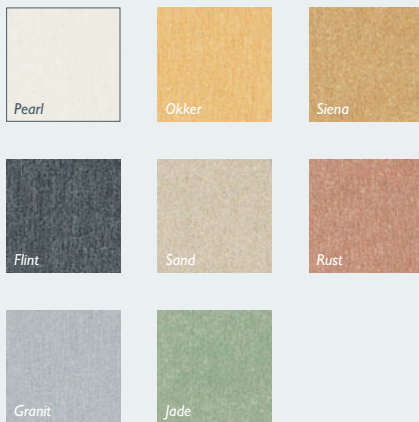
Cembonit is a range of strong, autoclaved cladding sheets characterised by their subtle, matt finish. The sheets are through coloured in nine attractive, muted natural colours. During the production process, Cembonit receives a unique impregnation treatment which protects throughout the sheet. Being impregnated, Cembonit sheets are effectively protected against water staining and dirt, ensuring that the facade retains its attractive appearance in both dry and wet weather conditions.





	Through coloured	Painted	Colour availability	Surface treated	Dimensions mm	Thickness mm
Cembrit Cembonit	Yes	No	9	Yes	1200 x 2500 1200 x 3050	8

CEMBONIT



Sheets exhibit a matt, optically level surface with a faint directional grain. Randomly dispersed spherules of cement in Cembonit's surface and variations of shade from sheet to sheet will assist in creating a natural looking façade.

Available as planks

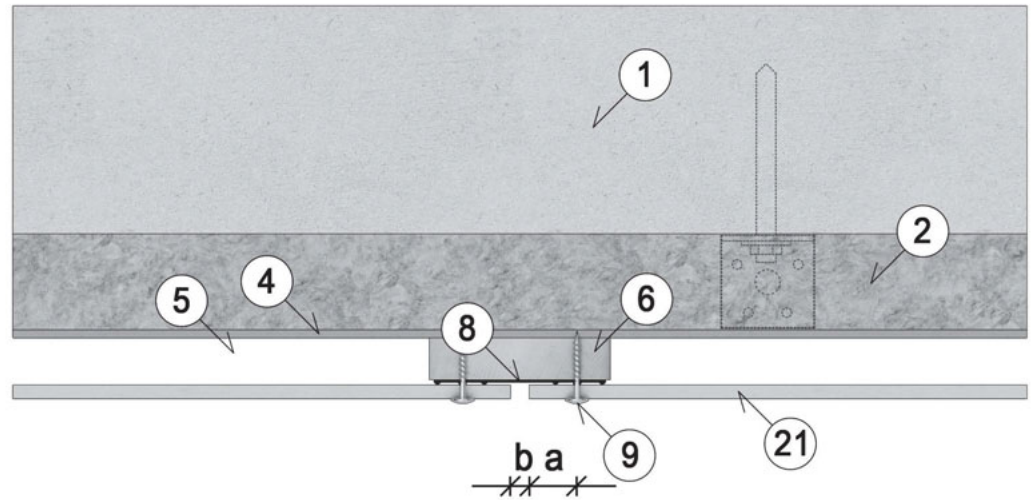
The Cembrit Cembonit range is also available as planks, allowing you to use the same material to create widely different looks.



Cembrit Cembonit is supplemented by a complete range of accessories to ensure simple, easy installation and a sleek, stylish end result that will last longer.

Ventilated facade, principle

- 1 Load bearing wall
- 2 Insulation
- 4 Wind break
- 5 Air gap min 25 mm
- 6 Batten min 25 x 125 mm
- 8 EPDM underlay 90 mm
- 9 Facade screw 4.5 x 36/41
- 21 Facade board
- a Edge distance min 30 mm
- b Joint width 8 mm



Quality:

- Cembonit cladding product specifications comply with EN 12467:2004 NT A41 and I 3501-1:2002 A2, s1-d0

Preferred application areas are:

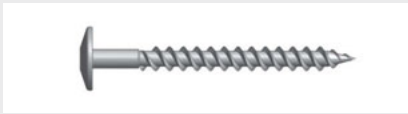
- Rain screen cladding
- Attics
- Weatherboarding
- Window elements
- Fascia, soffit and bargeboard
- Balconies
- Prefabricated facade elements

Rain screen cladding

Rain screen cladding contributes to reducing temperature variations in the wall throughout the year. Sunlight is reflected in the summertime, and the dry insulation reduces heat loss in cold seasons. At the same time the construction ventilates interior condensation. The boards can be installed with open horizontal joints, with joint profiles, with gaskets or as a weather boarding. The structural supports are anchored to the inner wall and transfer the load of the facade boards to the main construction.

Accessories

Cembrit screws for fixing facade boards are made of stainless steel for achieving the highest corrosion resistance. Mushroom head wood screws 4.5 x 36/4 I are used for wooden structural supports.



The screws have a sharp point and a fast cutting thread which secures a firm fixing with a high pull out value.



An alternative solution for wooden sub-constructions is the wing screw 4.9 x 38 which is equipped with a drill bit and therefore needs no pre-drilling.



For steel sub-constructions stainless self drilling and thread cutting screws 4.8 x 25 are used. Drilling capacity 1.5-2.5 mm



All screws are delivered plain or in the same colour as the facade boards, and with a Torx 20 bit included ready to use.



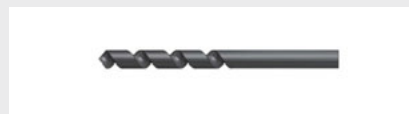
On aluminium sub-constructions rivets are most commonly used. Cembrit rivets 4.0 x 19/K14 feature an aluminium body with a stainless steel mandrel. At central fixings (see page 7) sleeve is used to prevent movement of the board.



In order to allow the boards to move freely at peripheral fixing points when influenced by moisture and temperature changes, a stand-off head must be used ensuring a small space between the board and the rivet head. A stand off head is not required at the central fixing point.



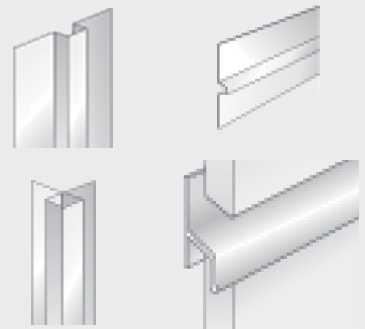
For securing the above mentioned free movement of the boards it is of great importance that the drill hole in the aluminium sub-construction and the drill hole in the Cembrit board are concentric. This is ensured by using an assisting tool.



4.1 mm HSS drill for rivets in aluminium profiles.



Special drill bit like TCT Drill (7-8-9 mm) from Irwin Tools for predrilling in the facade boards.



Aluminium interfaces, joints and internal and external corners are available.



Cembrit EPDM rubber underlay should always be placed under the Cembrit boards using mechanical fixing.

Cembrit boards can be adhesive fixed to a sub structure of planed, impregnated wood or aluminium. Note! The adhesive supplier's recommendations must be followed while using this type of installation. For further information please contact your local Cembrit representative.

Fixing Details

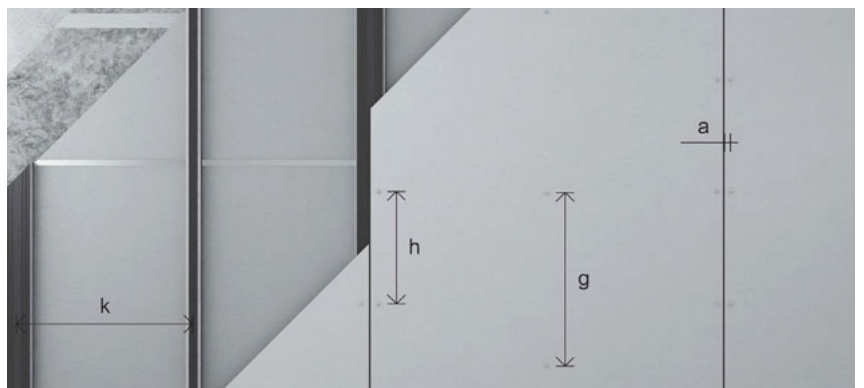
Thickness mm	Board width mm	Wind load kN/m ²	Min edge distances		Max support distance k mm	Max fixing distance along edges h mm	Max fixing distance board middle g mm
			a mm	c mm			
8	1200	1.5	30	70	600	600	600
8	1200	1.75	30	70	600	600	600
8	1200	2.00	30	70	400	600	600
8	1200	2.25	30	70	400	600	600
8	1200	2.5	30	70	400	600	600
8	1200	2.75	30	70	400	600	600
8	1200	3.00	30	70	400	500	500
8	1200	3.25	30	70	400	500	500
8	1200	3.50	30	70	400	400	400

Sub-construction	Drill Holes	
	Drill hole in board mm	Drill hole in sub construction mm
Wood	Ø7	-
Aluminium	Ø9	Ø4.1 (rivet 4.0mm)
Steel	Ø8	-

Front view vertical orientation

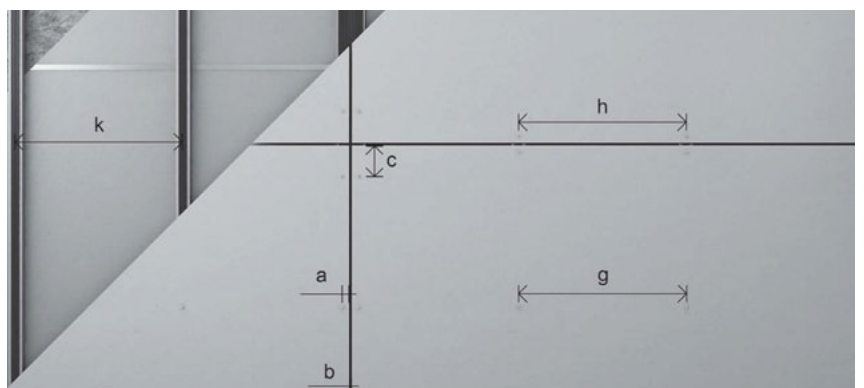
Screws on timber battens

The installer is responsible for establishing a plumb and strong sub-construction able to withstand the loads applying to the actual facade and adhering to the fixing centres described in this manual.



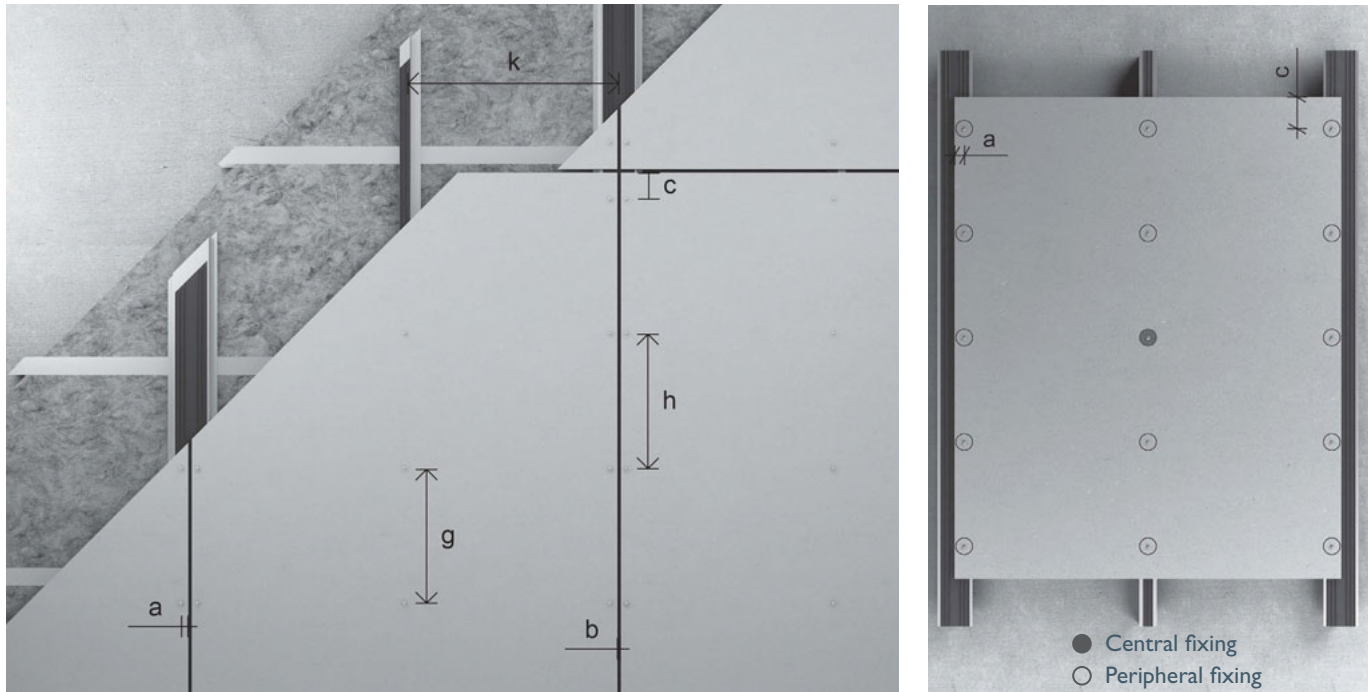
Front view horizontal orientation

Facade boards are normally installed vertically on vertical battens. It is however possible to install the boards horizontally. The guidelines for fixing are identical, to vertical as far as fixing centres, fixing distances from corners and edges, and spacing of support brackets is concerned.



Screws with steel support sections or rivets with aluminium

Front view



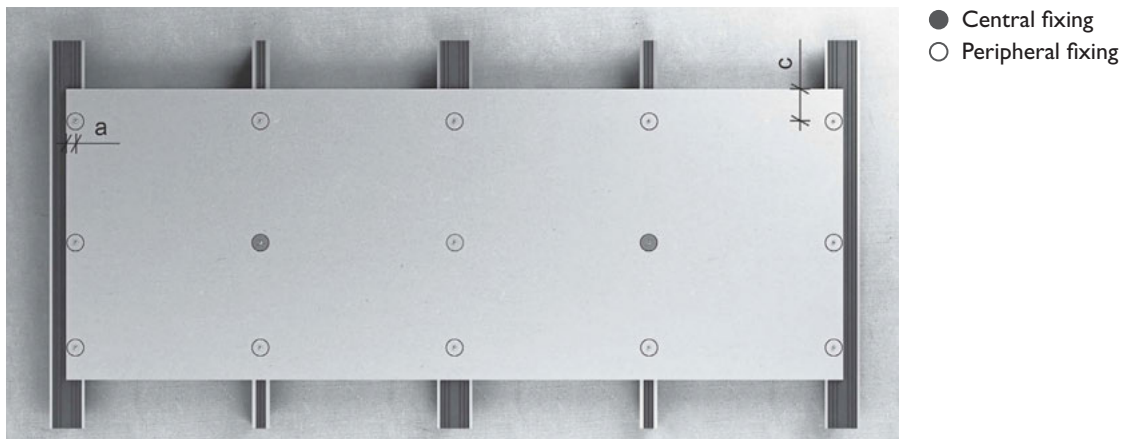
Fix aluminium support sections according to suppliers recommendations.

Essential assembly recommendations.

- Always commence with the central fixed fixing point as this takes the weight of the board and any movement in the board is centered on this point. All other peripheral fixings allow for board movement.
- The central fixing hole does not require use of a stand off head.
- Minimum aluminium profile length 3m.
- The aluminium profile butt joints must be aligned to coincide with cladding board joints. A board must never cross a joint in the aluminium profiles.
- In the case of two intermediate supporting profiles two central fixing points at the same horizontal level are required.
- Setting of the rivets takes place starting with the central fixing point, then the peripheral fixings above, and finally the peripheral fixing below the central fixing point.

Horizontal orientation

Façade boards may be installed horizontally on a vertical sub-structure. On metal framing the edge distance $a \geq 30$ mm and corner distance $c \geq 70$ mm. Every 12m of the facade a double framing must be installed in order to create an expansion joint.



Weatherboarding



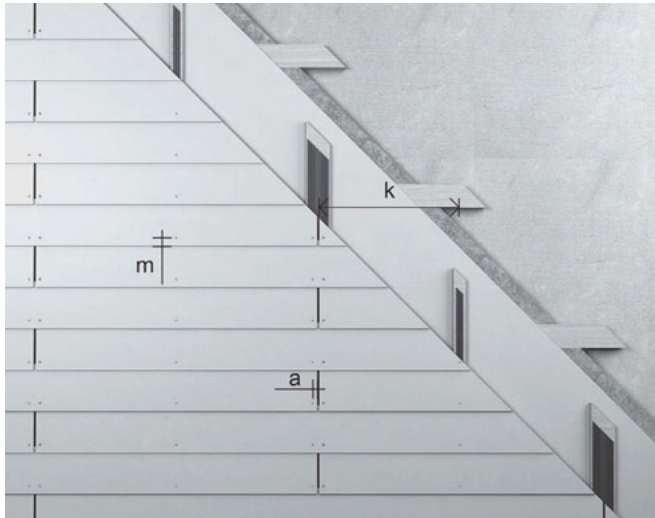
Weatherboards are popularly used on dormers, eaves, gables, carports etc. They can be fixed on vertical as well as horizontal battens. Visible fixing and concealed fixing is possible. Weatherboards can be cut to size on site, or they can be ordered cut to size from a Cembrit cutter merchant.

Note! The table below covers weatherboards up to a width of 300 mm with a single side fixing. Wider boards should be fixed with double sided fixing in accordance with the fixing details on page 9.

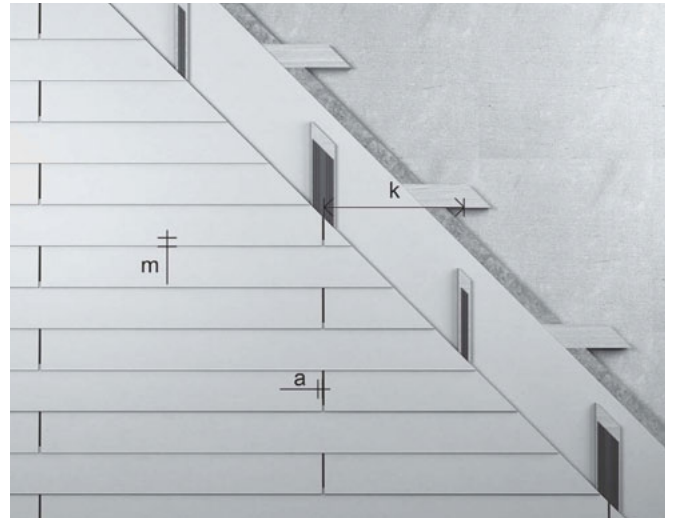
Fixing Details

Thickness	Max support distance	Min edge distances			Drill holes in board	
		a mm	m mm	c mm	Screws on wood and steel	Rivets on aluminium and steel
mm	k					
8	400	30	40	70	Ø7 on wood Ø8 on steel	Ø9

Front view



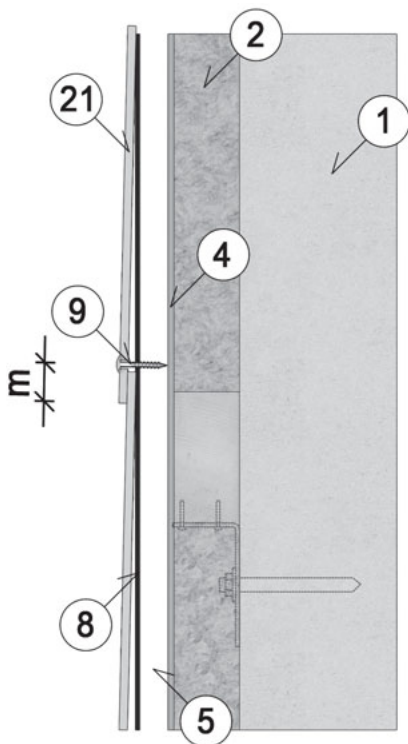
Vertical sub – visible fixing



Vertical sub – secret fixing

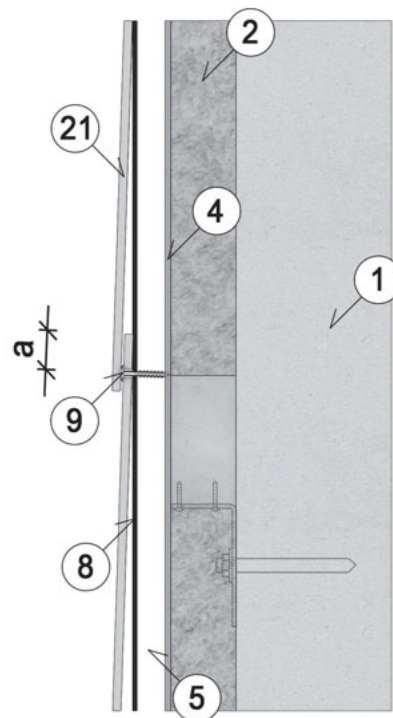
Vertical cross section visible fixing

- 1 Load bearing wall
- 2 Insulation
- 4 Windbreak
- 5 Air gap min 25 mm
- 8 EPDM underlay 90 mm
- 9 Facade screw
- 21 Facade board
- m Edge distance min 40 mm



Vertical cross section secret fixing

- 1 Load bearing wall
- 2 Insulation
- 4 Windbreak
- 5 Air gap min 25 mm
- 8 EPDM underlay 90 mm
- 9 Facade screw
- 21 Facade board
- a Edge distance min 40 mm



Bonding to wood and aluminium

It is possible to secret fix by bonding the façade boards to the sub-construction. This fixing method must be carried out by specialists, and therefore the potential adhesive suppliers should be consulted before commencing construction.

Recommended adhesive supplier:

SIKA Limited
Watchmead
Welwyn Garden City
Hertfordshire
AL7 1BQ

Tel: +44 (0) 1707 394444
Fax: +44 (0) 1707 377300

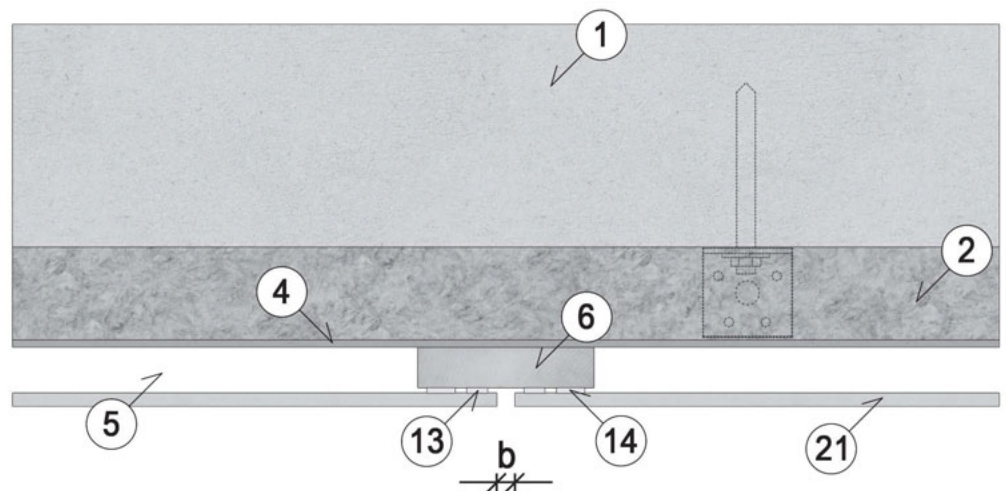
Email: sales@uk.sika.com
technical@uk.sika.com

Suggested adhesive fix details follow.

Please confirm suitability of the details shown below with the adhesive supplier

Horizontal cross section vertical joint

- 1 Load bearing wall
- 2 Insulation
- 4 Wind break
- 5 Air gap min 25 mm
- 6 Batten min 25 x 125 mm planed all round
- 13 Adhesive
- 14 Tape
- 21 Facade board
- b Joint width 8 mm



Handling

Cembonit cladding panels should be stored undercover on a dry level surface or on bearers off the ground. Cembonit panels are delivered with foam interleaves to protect them during transit. When removing from the delivered stack the panels should be lifted by 2 men and not dragged from the stack as this will damage the surface of the panel beneath. UK site safety regulations must be followed. Particular attention must be paid to providing adequate dust extraction and ventilation. Cutting and drilling are subject to dust development and proper precautions must be taken. Dust from fibre cement boards is characterized as mineral dust and a prolonged exposure must be avoided.

Cleaning of Facades

Annual Inspection

Normally a Cembonit facade cladding does not require any maintenance to keep up its strength, properties and function. Weathering impacts may, however, influence the visual appearance of the facade cladding.

Therefore, an annual inspection of the ventilation gaps, joints and fixings is a good idea. Detection and repair of possible damages secure a prolonged lifetime for the facade cladding.

Impact from Nature

The weather and nearby vegetation may affect the appearance of the facade cladding. Pollution, dust and pollen from trees, bushes and flowers do have an impact on the facade.

Cembrit products for facades are manufactured with weather-resistant raw materials and will not be attacked by algae, rot and dry rot.

Cleaning

Cembrit claddings can be cleaned with cold or lukewarm water, if necessary with the addition of a mild household cleaning agent not containing solvents. Always start from below with well-defined areas. Rinse with plenty of clean water until the facade is perfectly clean.

Before cleaning full scale, it is recommended to test the chosen cleaning method on a smaller area to make sure it answers its purpose.

Moss & algae

Moss and algae growth can be removed with common agents available on the market. Examples are hypochlorite (e.g. trade mark: Klorin) that has no long term effect or benzalconiumchloride (e.g. trade mark: Rodalon) 2.5% active that has a long term effect preventing new growth. After wetting the facade with clean water, the agent is applied according to the supplier's instructions. Do not leave the agent to dry completely. Rinse with lots of clean water.

High Pressure Cleaning

Warning! High Pressure Cleaning is a severe treatment for fibre cement cladding. Exaggerated or wrong use of a high pressure cleaner may damage the surface. **Therefore, High Pressure Cleaning is not recommended.**

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Photographs

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2.	Artist's studio, Brockley London SE4
3.	Weald of Kent grammar school, Tonbridge Kent
8.	Morris House, Acton Vale London W3



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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 claddings may vary according to light and weather conditions. It is advisable to ask for samples of material prior to specification and purchase.

Owing to this and limitations of the printing process, colours of claddings in this brochure may only be taken as indicative.

Please ensure that you have the latest version of this brochure by checking that the publication date on the top right of the front cover corresponds with the downloadable version on our website.

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