

Cement Board Installation Guide

Exterior Application

SECO LITE®





SECO LITE®

The Future of Cement Board

SECOLITE® Cement Board is a light-weight board made of Portland cement, aggregates and other inorganic materials, reinforced on both sides with embedded glass fiber.

SECOLITE® Cement Board is ideal for use in demanding environments. It can be used for both indoor and outdoor applications.



Water resistant
Weatherproof for up to 12 months



Impact resistant
Mould resistant



Non-combustible
according to EN13501-1
Excellent fire performance



Can be 'Score and Snapped'
Dimensionally stable



Projects with SECOLITE® Cement Board installations in Cascais Marine/PT 2023



SECOLITE® Cement Board is the next generation of light weight cement board specifically designed for SFS systems. Making it an ideal substrate for direct render or for a weatherproof, ventilated cladding system.

SECOLITE® Cement Board is designed to be score and snapped as opposed to traditional cement boards that require power tools and dust extraction to cut. The make-up of the board improves the usability when compared to other, traditional boards that are heavier, harder to handle and can generate large amounts of dust when cut.



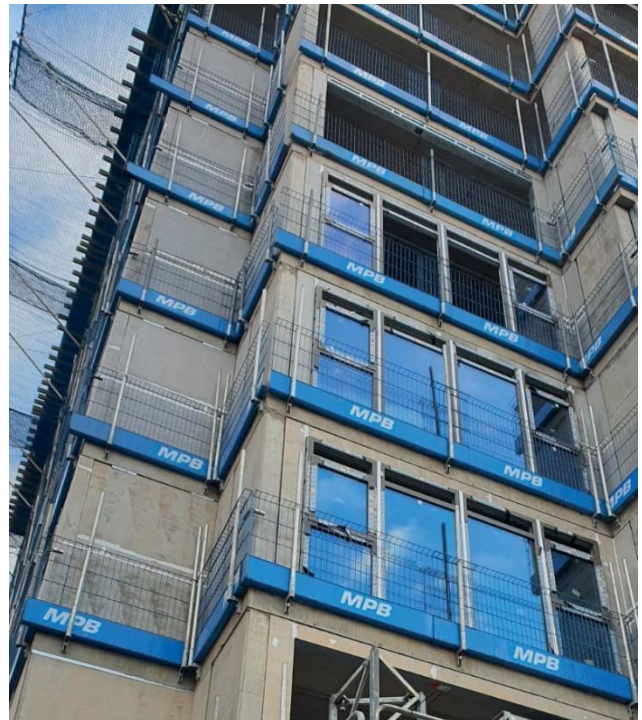
Installation

SECOLITE® Cement Board can maintain its performances even when exposed to extreme weather. Once SECOLITE® has been installed, the boards can be left exposed for up to 12 months prior to applying a render or facade without any detrimental effect on performance.

SECOLITE® Cement Board can be installed as the external layer to SFS systems making it an ideal substrate for direct render or for a weatherproof, ventilated cladding system.

With the benefits of a lightweight, dry construction SECOLITE® Cement Board enables a building to be made weathertight faster which in turn will allow internal trades to commence without issues and with adverse weather affecting the internal fit out.

Manufactured from inorganic materials and highly resistant to water and mould, SECOLITE® Cement Board weighs just 13.6 kg/m² per square meter - making it easy to handle and fast to install.



Projects with SECOLITE® Cement Board installations in Birmingham/UK 2023

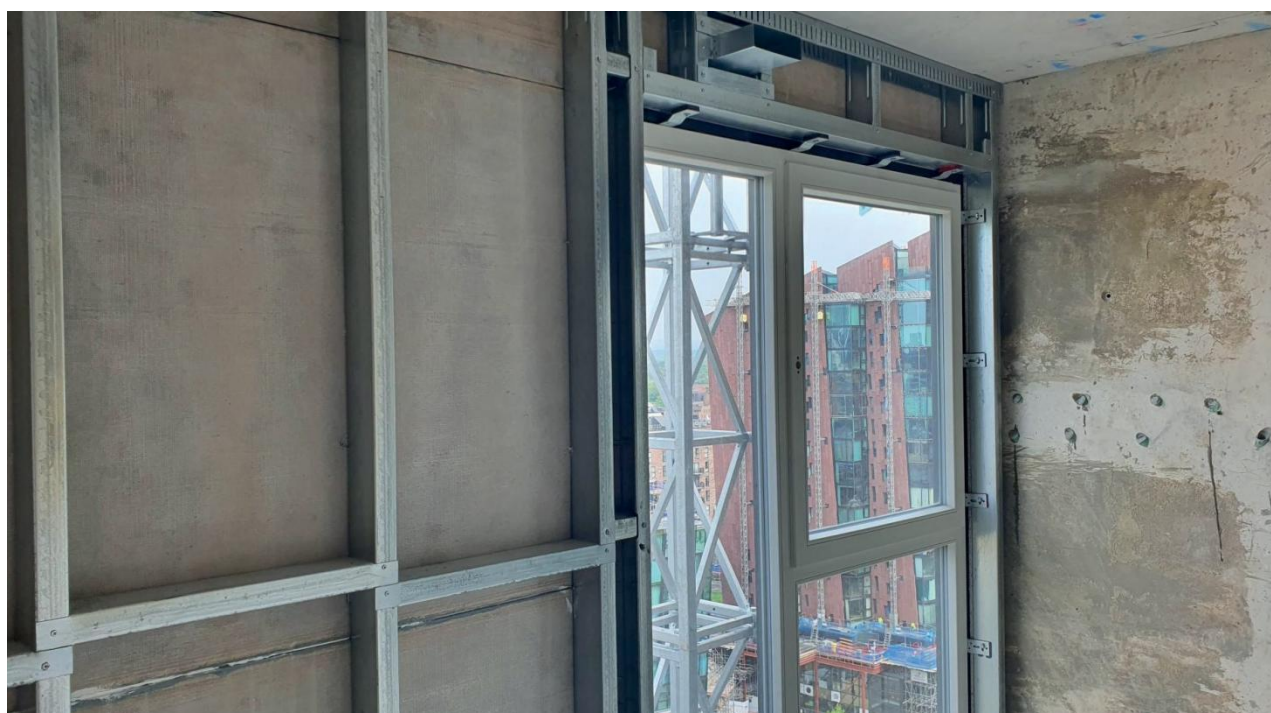
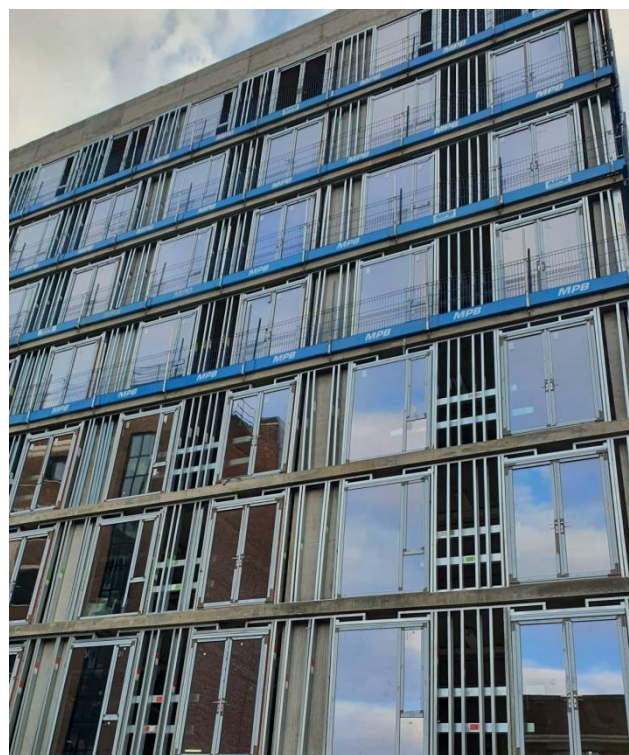
Installation Cladding

SECOLITE® Cement Board is designed for use on metal and timber framed buildings and as a substrate for external thermally insulated composite systems.

Once SECOLITE® Cement Board is mechanically fixed to the timber or metal substrate a suitable ETICS system fixed through to the structure behind can be installed.

After installation of SECOLITE® Cement Board it is also able to accommodate other cladding systems such as brick slips, glazing or composite panels.

The boards can be installed vertically or horizontally.



Substructure and board alignment

SECOLITE® Cement Board can be fixed to either timber or metal framing. Ensure that the framing is fixed to the structure securely using suitable fixings. Metal, timber or SFS profiles should be fixed at no more than 600mm centres.

Depending on loads applied to the board and background, additional support, noggings or reduced centres may be required.

Align the first SECOLITE® Cement Board sheet along the framing profiles using a level. Ensure that board joints align with the centre of the studs.



Horizontal installation of SECOLITE® Cement Boards

Cutting

SECOLITE® Cement Board can be cut using the 'score & snap' method. There is no need for power tools and dust extraction.

Once the desired dimensions have been marked on the SECOLITE® Cement Board using a sharp knife, score the board to one side ensuring that the mesh is cut. Bend and snap along the initial cut, then use the knife to slice through the mesh at the back.



Snap and cut the mesh through on the reverse

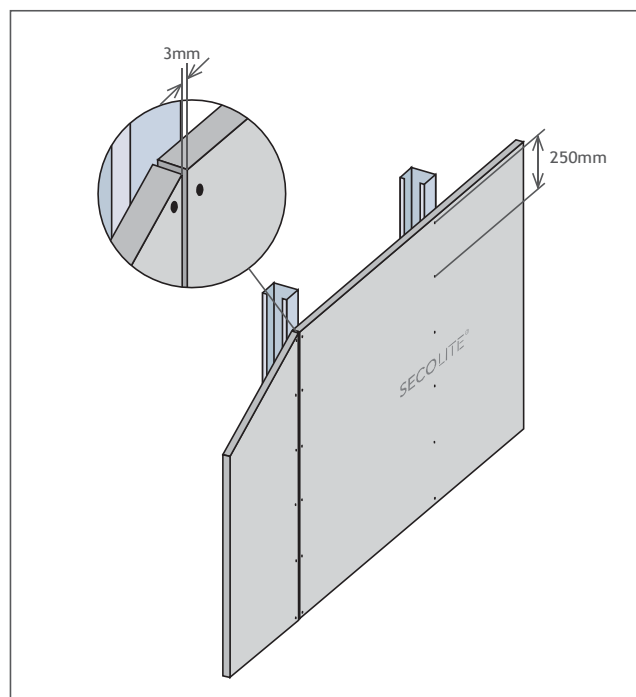
Fixing

Once the SECOLITE® Cement Board has been cut to size if required, offer up the board in the vertical or horizontal position with framing members at maximum 600 mm centres. Ensure that the SECOLITE® Cement Board is located on the centre line of the framing member and keep a 3 mm gap between board-to-board-joints.

Once the board is located, use SECOLITE® Screws to fix the board to the framing members. SECOLITE® Cement Boards should be fixed at a maximum of 250mm centres and 15mm in from all board edges.

Screws should not be over tightened and sit flush with the surface.

When installing SECOLITE® Cement Board to windows, doors and openings it is imperative to ensure that there are no board joints that coincide at corners. This may allow moisture ingress in these locations.



SECOLITE® Cement Board Layout

OPTION A

Direct finishes - Painting, brick slips or tiles

The installation instructions for SECOLITE® Cement Boards for exterior applications cover the assembly of the board through to the preparation of the wall for finishing. The type of finishing and its execution is outside the scope of PLACACEM.

Jointing

Push SECOLITE® Joint Filler in the gaps between the boards and spread it across the face of the board. Firmly embed SECOLITE® Joint Tape into the centre of the joints (both vertical and horizontal joints). When the SECOLITE Joint Tape is secured scrape away excess jointing material leaving the SECOLITE® Joint Tape covered.

Spot the screw heads with the filler.

Allow the filler to set.



A1

Finishing with brick slips or tiles

After a suitable mortar is applied to the entire surface, different finishes such as Brick Slips or Tiles can be glued to the surface.

A2

Paint finishes

At least 24 h after the jointing the board surface can be prepared for applying the reinforcement mesh.

Apply a layer of 2-3 mm of SECOLITE® Joint Filler and Skim Coat to the entire surface of the board.

Embed SECOLITE® Reinforcement Mesh with an overlap of 100 mm in the layer of SECOLITE® Joint Filler and Skim Coat and smooth the surface.

Once dry apply another 1 mm layer of SECOLITE® Joint Filler and Skim Coat for final skimming with a trowel. In the final step use a sponge trowel to prepare the wall for finishing.

In preparation for painting, a thin coat on cement, calcium carbonate or acrylic base must be applied. The application of a primer before painting is recommended.



OPTION B

Sheathing board

In this application SECOLITE® Cement Board acts as a weather-tight envelope of the building and substructure for curtained facades.

A basic distinction is made here as to how the joint is executed.

Joint filler & joint tape

Here the joints are filled with SECOLITE® joint filler. Put SECOLITE® Joint Filler in the gaps between the boards and spread it across the face of the board. Firmly embed SECOLITE® Joint Tape into the centre of the joints (both vertical and horizontal joints). When the SECOLITE® Joint Tape is secured scrape away excess jointing material leaving the SECOLITE® Joint Tape covered. Spot the screw heads with the filler. Allow the filler to set.

Special adhesive tape

Alternatively, the joint can be taped with a special adhesive tape. This variant is widespread and basically sufficient in terms of waterproofing the SECOLITE® Cement Board wall. In case of increased fire protection requirements, the joint is first filled with a fire-resistant silicone sealant and then taped over with the special adhesive tape.

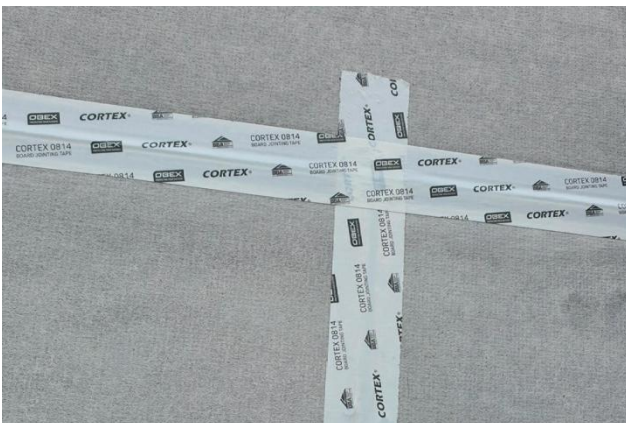
Joint adhesive

In this variant the joints are filled with a suitable exterior joint adhesive only. The joint is not taped over with a special adhesive tape. The main purpose of this simple solution is to seal the joint against water ingress. In case of increased fire protection requirements, a fire-resistant silicon sealant is used.

The table on the right compares the most common variants of making joints for exterior applications of SECOLITE® Cement Boards.

Execution of exterior joints	A	B	C	D
Joint filler & Tape	x			
Exterior joint adhesive		x	x	
Fire resistant joint adhesive				x
Special adhesive tape			x	x
Contribution to weather tightness of wall	++	+	++	++
Contribution to fire resistance of wall	++	-	-	++

Recommended ++ Suitable + Not recommended -



Special adhesive tape



Fire-resistant silicon sealant (mastic)

Water resistive barrier membrane

A water resistive barrier is a thin membrane, which is intended to resist liquid water that has penetrated behind the exterior cladding. In the event of water ingress into the wall system, the membrane allows moisture to pass through due to its breathability, or vapor permeability.

Water resistive barrier membranes can be installed in two ways:

OPTION A

Membrane fixed to the substructure of SECOLITE® Cement Board

SECOLITE® Water Resistive Barrier Membrane is placed on the metal framing with a double side tape. Sheets need to overlap >100 mm and a breather membrane lap tape is put over the open ends. The double side tape holds the membrane in position until SECOLITE® Cement Board is fixed against the framing. In case of timber framing SECOLITE® Water Resistive Barrier Membrane is fixed with staples.

OPTION B

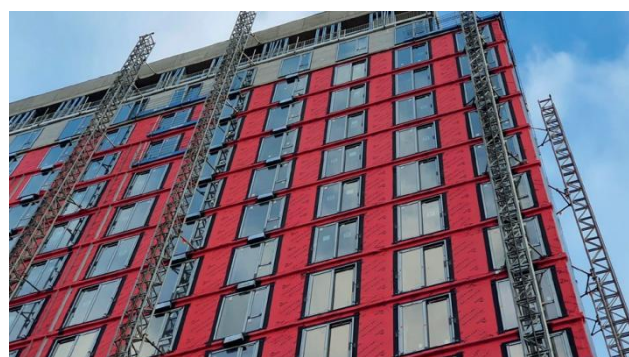
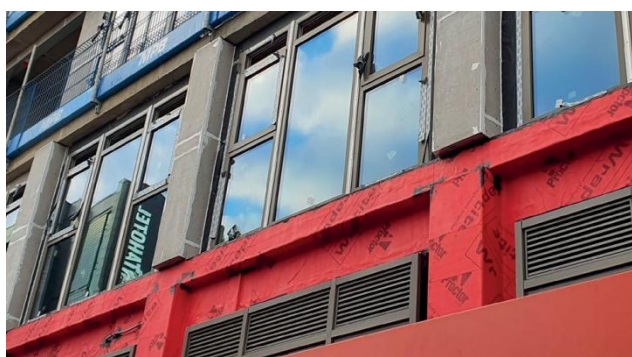
2 types of membranes applied to the surface of SECOLITE® Cement Board

SECOLITE® Water Resistive Barrier Membrane can also be applied on the surface of the board. Here the membrane is held in place by clamps placed at maximum 600mm centres. Sheets need to overlap >100 mm and a breather membrane lap tape is put over the open ends.

Alternatively self adhesive water resistive barrier membranes are glued on top of SECOLITE® Cement Board. Below images show installations of SECOLITE® Cement Board with a joint adhesive for the joint and a water resistive barrier membrane on the face of the cement board.



Projects with SECOLITE® Cement Board installations in Birmingham/UK 2023



Substructure for ventilated cladding systems completed

With the joints made, the substructure for ventilated cladding systems is basically completed. The application of water resistive barrier membranes is recommended.

The type and installation of ventilated cladding system is outside the scope of PLACACEM.

Installation

Exterior Ceilings and Soffits

SECOLITE® Cement Board is also ideal for creating exterior soffits and the illusion of an internal ceiling continuing through the façade to the outside of the building.

SECOLITE® Cement Board can be used in semi-exposed environments to form a monolithic ceiling capable of receiving a multitude of finishes. Creating flat and uniform external soffits.

Using SECOLITE® Cement Board for soffits and external ceilings it is ideal for use in many areas, including:

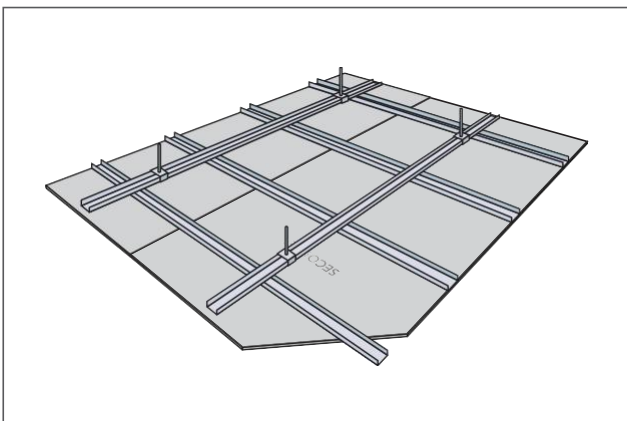
- Soffits
- Underground car park soffits
- To the underside of balconies
- Tunnels



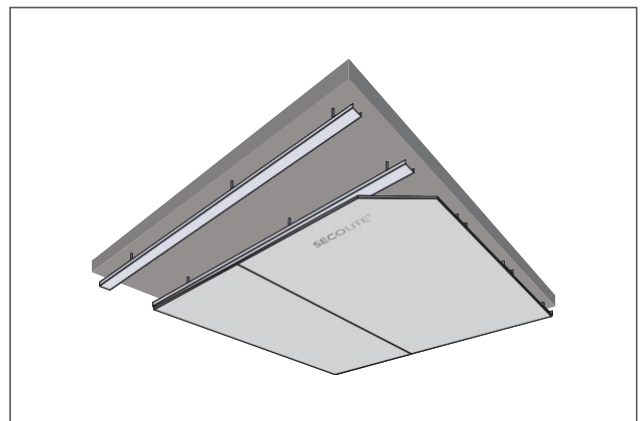
SECOLITE® Cement Board soffits should be installed in a similar manner to the exterior wall application.

To ensure optimum results, we recommend to use of SECOLITE® Metal Profiles at a maximum spacing of 400 mm. SECOLITE® Cement Boards should be fixed at a maximum of 200 mm centres. Screws should be fixed 15 mm from the edge of the board and set flush with the board face without over driving.

Once all joints are sealed and screw heads spotted with SECOLITE® Joint Filler they can be left exposed and unfinished for a maximum of 12 months.



Isometric showing a ceiling or soffit installation using SECOLITE® Cement Boards

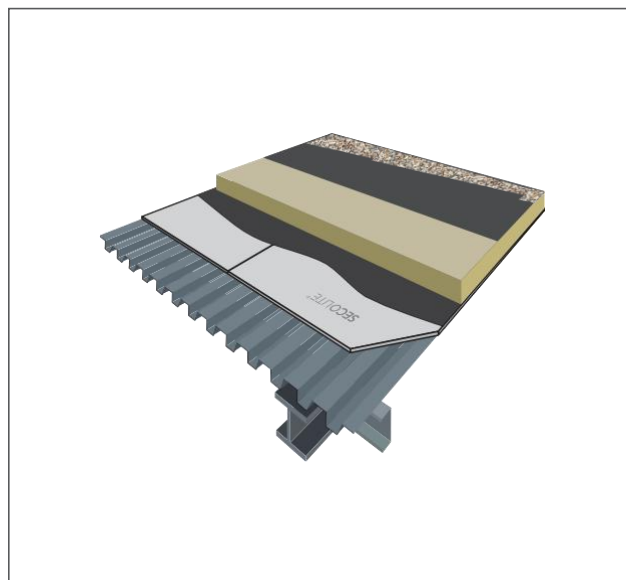


Plan view of a ceiling or soffit installation using SECOLITE® Cement Board

Installation Flat Roofing

Another possible application of SECOLITE® Cement Boards are flat roofs. Here the board serves as a base for the roof insulation and is laid on the steel deck (trapezoidal sheet) mounted on the supporting substructure and screwed to it.

In an extended version, a separate layer of SECOLITE® Cement Boards can be laid on top of the insulation. This serves the purpose of improved load distribution and accessibility of the roof.



Isometric showing a flat roof installation using SECOLITE Cement Boards

Secolite® Cement Boards Handling

SECOLITE® Cement Boards are delivered on pallets up to 56, 40 and 30 for product thicknesses of 8, 12.5 and 15 mm. A forklift capable to safely lift 2,000 kg should be used to lift and move pallets of boards. Ensure that storage areas can support the weight of the pallets and boards (up to 1,500 kg/pallet). Do not stack SECOLITE® Cement Board more than 6 pallets high.

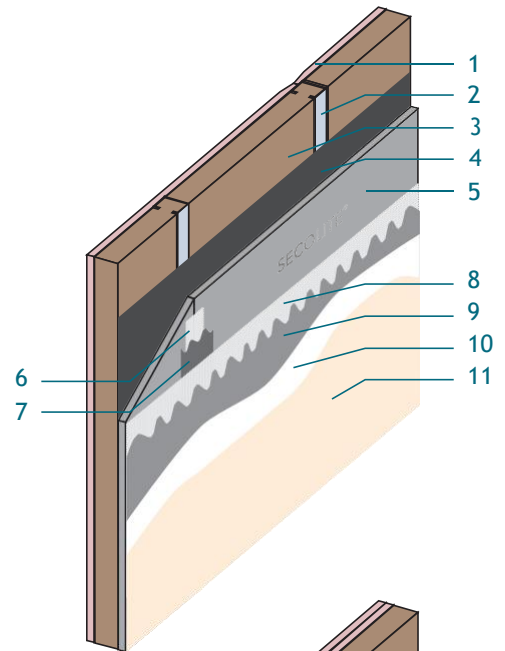
SECOLITE® should be stored in a dry location and protected from prolonged exposure to excess moisture. Allow boards to acclimate to ambient moisture and humidity conditions prior to installation.



Secolite® Systems

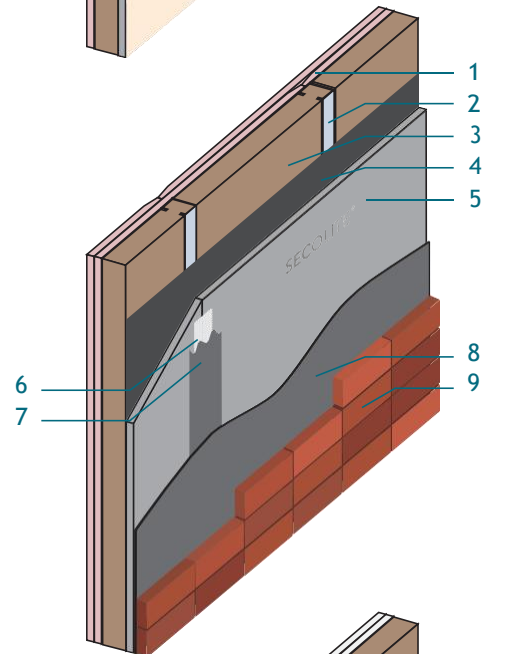
Through Wall System with SECOLITE® Cement Board Direct render finishes DFR1 (EI 60 fire rating both ways)

- 1 Gypsum fire board 15 mm (or 2 layers gypsum board regular)
- 2 Metal profiles ≥ 0.8 mm with max. 600 mm stud centres
- 3 Mineral wool insulation in the cavity (density ≥ 15 kg/m³)
- 4 Water resistive barrier (WRB) on the outer side of the metal profiles
- 5 SECOLITE® Cement Board 12.5 mm on top of the WRB
- 6 SECOLITE® Joint tape
- 7 SECOLITE® Joint filler
- 8 SECOLITE® Reinforcement mesh
- 9 SECOLITE® Skim coat
- 10 Primer
- 11 Paint



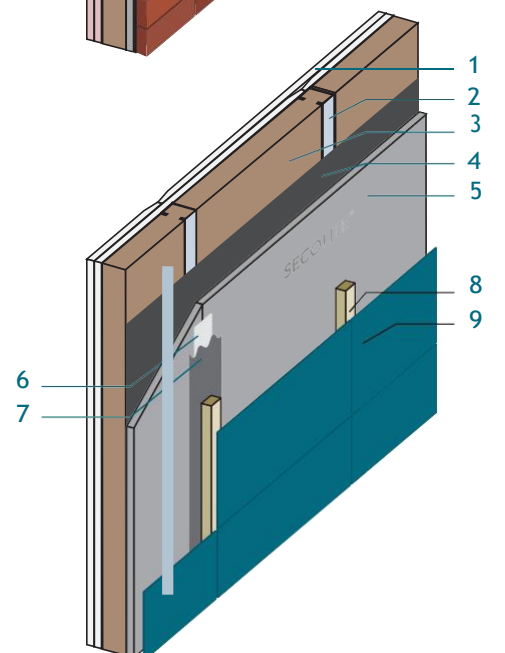
Through Wall System with SECOLITE® Cement Board Direct finishes with brick slips DFB2 (EI 90 fire rating both ways)

- 1 2 layers of gypsum fire board 15 mm
- 2 Metal profiles ≥ 0.8 mm with max. 600 mm stud centres
- 3 Mineral wool insulation in the cavity (density ≥ 15 kg/m³)
- 4 Water resistive barrier (WRB) on the outer side of the metal profiles
- 5 SECOLITE® Cement Board 12.5 mm on top of the WRB
- 6 SECOLITE® Joint tape
- 7 SECOLITE® Joint filler
- 8 Adhesive cement mortar
- 9 Brick veneer / Tiles



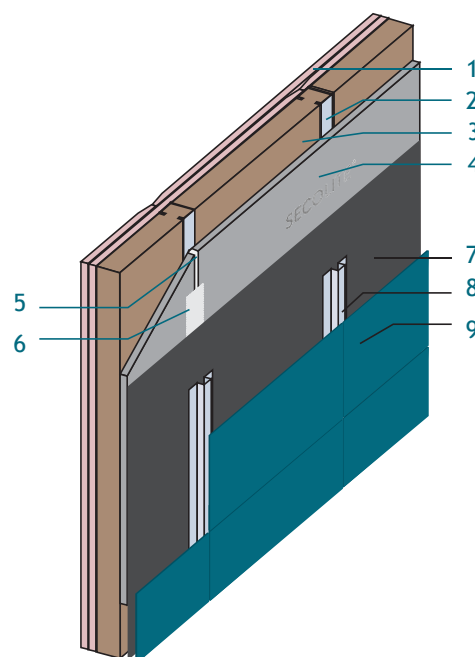
Through Wall System with SECOLITE® Cement Board Ventilated system VSA1 (EI 60 fire rating both ways)

- 1 Gypsum fire board 15 mm (or 2 layers of gypsum board regular)
- 2 Metal profiles ≥ 0.8 mm with max. 600 mm stud centres
- 3 Mineral wool insulation in the cavity (density ≥ 15 kg/m³)
- 4 Water resistive barrier (WRB) on the outer side of the metal profiles
- 5 SECOLITE® Cement Board 12.5 mm on top of the WRB
- 6 SECOLITE® Joint tape
- 7 SECOLITE® Joint filler
- 8 Timber battens or metal profiles (omega)
- 9 Rainscreen / Façade



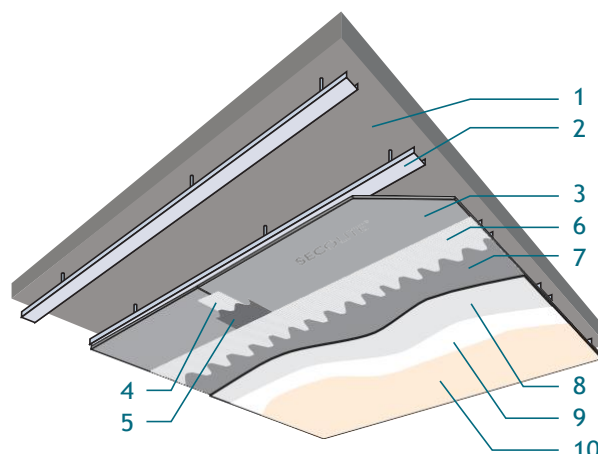
Through Wall System with SECOLITE® Cement Board Ventilated system VSB2 (EI 90 fire rating both ways)

- 1 2 layers of gypsum fire board 15 mm
- 2 Metal profiles ≥ 0.8 mm
- 3 Mineral wool insulation in the cavity (density ≥ 15 kg/m³)
- 4 SECOLITE® Cement Board 12.5 mm
- 5 Joint with fire resistant mastic
- 6 Self-adhesive joint tape
- 7 Self-adhesive water resistive barrier (SWRB) on the outer side of the metal profiles
- 8 Timber battens or metal profiles (omega)
- 9 Rainscreen / Façade



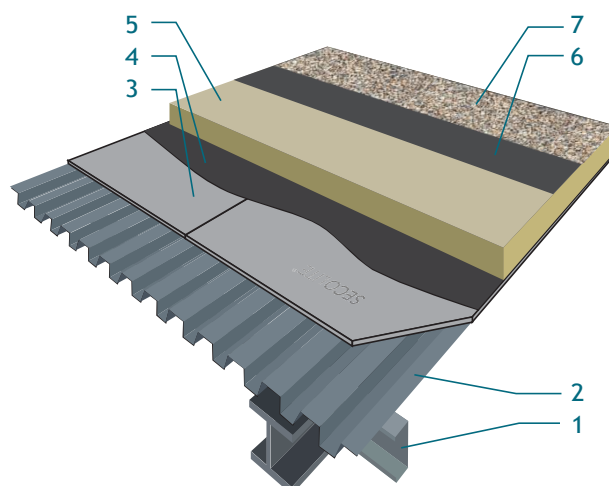
Suspended Ceilings and Soffits

- 1 Concrete ceiling
- 2 Substructure - metal framing with 400 mm stud centres
- 3 SECOLITE® Cement Board 12.5 mm
- 4 SECOLITE® Joint tape
- 5 SECOLITE® Joint filler
- 6 SECOLITE® Reinforcement mesh
- 7 SECOLITE® Skim coat
- 8 Finishing render
- 9 Primer
- 10 Paint




Flat Roofing

- 1 Steel construction with transoms and purlins
- 2 Steel deck (steel profile sheet)
- 3 SECOLITE® Cement Board 12.5 mm fixed to steel deck with SECOLITE® Cement Board screws
- 4 Cold bitumen pre-coating
- 5 Insulation
- 6 Membrane (aluminium or bitumen)
- 7 Roof structure (green roof/light vegetation, gravel, solar panels,...)



Secolite® Cement Boards


SCL 8



Dimensions*	Tech. Data		Trucks 24 tons load			Containers 40/45'HCPW - 26 tons load		
	kg/m ²	m ² / board	boards/ pal.	boards/ truck	m ² / truck	boards/ pal.	boards	m ² / cont.
8 x 2 000 x 1 200	9.2	2.40	56	1 064	2 554	56	1 120	2 688
8 x 2 400 x 1 200	9.2	2.88	56	896	2 580	56	952	2 742

* On request, other dimensions available / possible


SCL 12.5



Dimensions*	Tech. Data		Trucks 24 tons load			Containers 40/45'HCPW - 26 tons load		
	kg/m ²	m ² / board	boards/ pal.	boards/ truck	m ² / truck	boards/ pal.	boards	m ² / cont.
12.5 x 2 000 x 1 200	13.6	2.40	40	720	1 728	40	760	1 824
12.5 x 2 400 x 1 200	13.6	2.88	36	576	1 659	37	629	1 812
12.5 x 2 500 x 1 200	13.6	3.00	35	560	1 680	36	612	1 836

* On request, other dimensions available / possible


SCL 15



Dimensions*	Tech. Data		Trucks 24 tons load			Containers 40/45'HCPW - 26 tons load		
	kg/m ²	m ² / board	boards/ pal.	boards/ truck	m ² / truck	boards/ pal.	boards	m ² / cont.
15 x 2 000 x 1 200	16.2	2.40	30	600	1 440	30	648	1 555
15 x 2 400 x 1 200	16.2	2.88	30	480	1 382	30	540	1 555

* On request, other dimensions available / possible

SCL 12.5 HANDYBOARDS



Dimensions*	Tech. Data		Trucks 24 tons load			Containers 40/45'HCPW - 26 tons load		
	kg/m ²	m ² / board	boards/ pal.	boards/ truck	m ² / truck	boards/ pal.	boards	m ² / cont.
12.5 x 1 200 x 800	13.6	0.96	90	1 800	1 728	90	1 890	1 814
12.5 x 1 000 x 900**	13.6	0.90	90	1 890	1 701	90	2 070	1 863
12.5 x 1 000 x 800**	13.6	0.80	90	2 160	1 728	90	2 250	1 800
12.5 x 1 000 x 1 800**	13.6	1.80	60	960	1 728	60	1 020	1 836
12.5 x 900 x 1 800**	13.6	1.62	66	1 056	1 711	66	1 122	1 818
12.5 x 1 000 x 1 500**	13.6	1.50	60	1 140	1 710	60	1 200	1 800

* On request, other dimensions available / possible

** All four edges are cut

Availability and lead time: product is ready for shipping 4-6 weeks after receiving the order confirmation for orders up to 5 trucks/containers.

Lead time for orders > 5 trucks/containers on request.



SECOLITE® Pallet




SECOLITE® HANDYBOARDS Pallet


Secolite® Complementary Products

SCL Cement Board Screws


* Net usage w/o waste, spare and extras

Description	Dimensions	Packing	Exterior	Interior	Application	Unit	Usage
 <p>PN. Designed for fixing SECOLITE® Cement Board on timber and metal frame works (thickness up to 0.7 mm). Min. screw-in depth: 10 mm for metal and 25 mm for timber applications.</p>	4x32 / 41	1000 pcs / box	✓	✓	Wall: profile spacing 600 / 625	pcs/m ²	15*
					Ceiling: profile spacing 300 / 312.5		25*
<p>SD. Designed for fixing SECOLITE® Cement Board on metal frame works with thicknesses 0.8 to 2.0 mm.</p>	4x32 / 41	1000 pcs / box	✓	✓	Wall: profile spacing 600 / 625	pcs/m ²	15*


SCL Joint Tape

Description	Dimensions	Packing	Exterior	Interior	Application	Unit	Usage
 <p>Joint mesh tape for reinforcement of exterior and interior joints made with SECOLITE® Joint Filler & Skim Coat.</p>	125 mm wide	1500m ² / pallet; 240rolls / pallet	✓	✓	Wall / Ceiling	lm / m ²	1.5


SCL Joint Filler And Skim Coat

Description	Dimensions	Packing	Exterior	Interior	Application	Unit	Usage
 <p>Cement based filling material for joints and full-surface skimcoating, interior & exterior application.</p>	Bags 20 kg	60 bags / pallet	✓	✓	Joint	kg / m ²	0.6
				✓	Ceiling / Wall: full-surface filling	kg / m ² / mm	0.6
						kg / m ²	1.8
			✓		Wall / Ceiling: full-surface filling 2.5-3.5 mm incl. Inlay of reinforcement mesh	kg / m ² / mm	1.6
					kg / m ²	4.8	


SCL Joint Adhesive

Description	Dimensions	Packing	Exterior	Interior	Application	Unit	Usage
 <p>For the bonding of SECOLITE® Cement Board in the wall. Not used in the ceiling area.</p>	310 ml/ cartridge			✓	Joint	ml/m joint	25
						m ² of cement board 1 200 x 2 400 w/ 1 cartridge	11

SCL Water Resistive Barrier Membrane

Description	Dimensions	Packing	Exterior	Interior	Application	Unit	Usage
 <p>Light weight but strong breather membrane for exterior wall applications; excellent water resistance but still high breathability;</p>	150 g/m ² ; Width:1.5m; Roll: 75m ²	Roll	✓		Wall	m ² /m ²	1.25

SCL Reinforcement Mesh

Description	Dimensions	Packing	Exterior	Interior	Application	Unit	Usage
 <p>Coating, applied on Basecoat or Joint Filler & Skim Coat</p>	Width: 1000 mm; 160 g/m ² ; 50 m ² /roll	Roll	✓		Wall / Ceiling	m ² /m ²	1.19

Cofinanciado por:



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