# SECOLITE® CEMENT BOARD TECHNICAL AND INSTALLATION INFORMATION

# SECO LITE

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# SECOLITE® CEMENT BOARD

# 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
- Mould resistant
- Weather-proof and durable
- Impact resistant and dimensionally stable
- Does not rot
- Easy to cut, handle and install
- Non-combustible according to EN13501-1







At SECOLITE<sup>®</sup> we have produced the next generation of cement board. With excellent fire performance, water resistance, weather tightness and breathability SECOLITE<sup>®</sup> Cement Board makes the perfect choice for exterior use as a sheathing board as well as interior use in wet areas.

SECOLITE<sup>®</sup> 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 it 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.

- Inherently moisture resistant and dimensionally stable
- Can be left exposed for 6 months
- Mould resistant and non-organic
- Lighter and faster than traditional brick or blockwork

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# TECHNICAL CHARACTERISTICS

ACCORDING TO EN 12467:2012+A2:2018

Classification	Type NT /Category B Class I
Standard Thickness	8 mm, 12.5 mm, 15 mm
Available Widths	900 mm, 1200 mm, 1250 mm
Available Lengths	2000 mm, 2400 mm
Nominal Thickness Variation	± 10% of nominal
Nominal Width Variation	± 0.3 % mm
Nominal Length Variation	± 5 mm
Squareness of Edges	< 2 mm/m
Apparent Density	> 1000 kg/m³
Bending Strength (MOR)	> 4 MPa
Reaction to Fire - according to EN 13501-1	A1 Non-Combustible
Mold Resistance - according to ASTM D3273/3274	10 - No Growth

CE

SECOLITE® Exterior and Interior are manufactured and CE Marked to EN 12467: 2012



SECOLITE® Manufacturing and central functions are under process of acreditation of ISO 9001 and ISO 14001



### DECLARED PERFORMANCES

Essential Characteristics	Performance	Harmonized Technical Specification
Type of Board	NT	EN 12467:2012+A2:2018
Mechanical Resistance	Class B1	EN 12467:2012+A2:2018
Release of Dangerous Substances	NPD	EN 12467:2012+A2:2018
Reaction to Fire	A1	EN 13501-1:2018
Water Impermeability	Pass	EN 12467:2012+A2:2018
Durability against Warm Water	Category B	EN 12467:2012+A2:2018
Durability against Soak/Dry	Category B	EN 12467:2012+A2:2018
Durability against Freeze-Thaw	Category B	EN 12467:2012+A2:2018
Durability against Heat-Rain	Category B	EN 12467:2012+A2:2018



ETA - SECOLITE® Cement Boards are currently under product assessment for use Internally and Externally



SECOLITE® Cement Board is currently under assessment for BBA Approval for external use

# **EXTERIOR**

SECOLITE<sup>®</sup> Cement Boards offer the ideal substrate for closing in the external façade of buildings. Offering a dry, stable base for directly applied renders and can be used behind rainscreen cladding systems.

SECOLITE® Cement Board can maintain performances even when exposed to extreme weather.

Once SECOLITE<sup>®</sup> Cement Board has been installed and the joints finished with SECOLITE<sup>®</sup> Joint Compound, the boards can be left exposed for up to 6 months prior to applying a render or facade without any detrimental effect on performance.

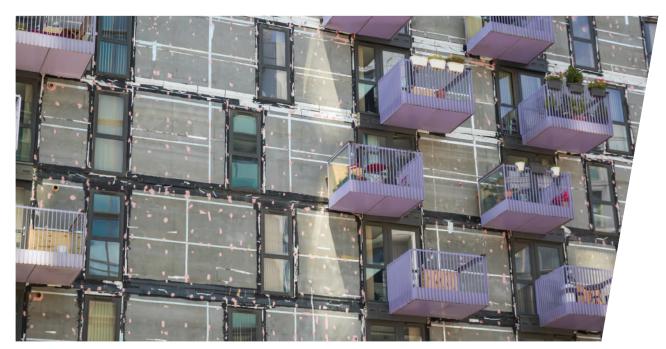
Closing in the external façade early in the build program and forming a weathertight barrier can allow the internal fit out and works to commence without issues with water ingress or adverse weather.

Closing of the external fabric allows the project program to be sped up and helps meet deadlines.

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 on both timber and steel framed structures. SECOLITE® Cement Board can contribute to the racking strength of structures and help improve acoustic performances to reduce unwanted external noise.









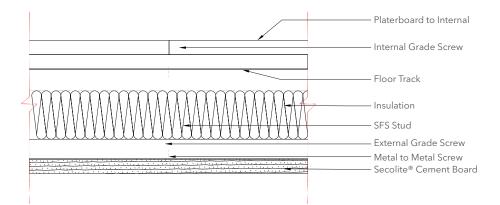
# **EXTERIOR CLADDING**

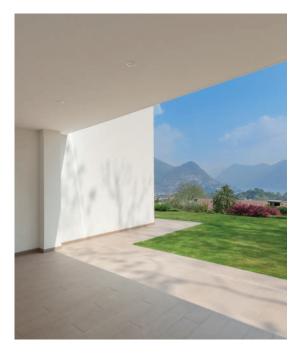
SECOLITE® Cement Board is designed for use on metal and timber framed buildings and as a substrate for external thermally insulated composite systems.

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.

#### 120 MINUTE FIRE RATED CONSTRUCTION





# EXTERIOR CEILINGS AND SOFFITS

Using SECOLITE® Cement Board to form exterior ceilings and soffits is incredibly straightforward.

Mechanically fixed directly to a suitable grade steelwork or ceiling grid offers the ability to create a smooth and seamless background for further finishing. SECOLITE® Cement Board can make the transition from internal ceiling to exterior finish flawless and allow for the internal architectural look to continue externally.

The ease of installation of SECOLITE® Cement Board means that it can be carried out by internal ceilings fixers or façade installers. Reducing trades on site and allowing faster completion, reduced costs and installation times.



### **INSTALLATION**

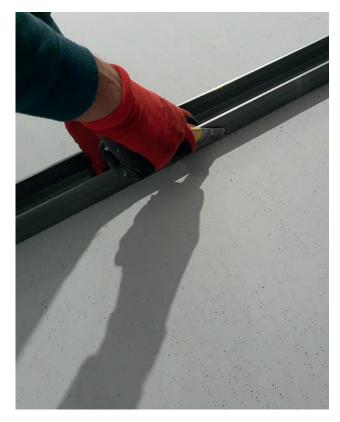
SECOLITE® Cement Boards are formulated to be lightweight, easy to cut and quick to install.

#### PREPARATION

SECOLITE<sup>®</sup> Cement Board can be fixed to either timber or metal framing. Ensure that the framing is fixed to the structure securely using suitable fixings. Depending on loadings applied to the board and background additional support, noggins or reduced centres may be required.

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 and then using the knife cut through the mesh on the reverse.



Score and snap method for cutting



Score and snap method for cutting

If desired a circular saw with a dust extractor can be used.

For services and pipework a hole saw with a diameter 10mm larger than the penetration can be used. The gap around the services should then be sealed using a suitable sealant or proprietary collar.

SECOLITE® Cement Board can be curved to a radius of 2 metres. The SECOLITE® Cement Board should be curved prior to installation.

Additional support or reduced centres of the framing may be required dependant on the desired radius of the curve. During installation on curves fine cracks may appear in the surface and core of the board. These will not adversely affect the performance of the system.



#### **FIXING BOARD**

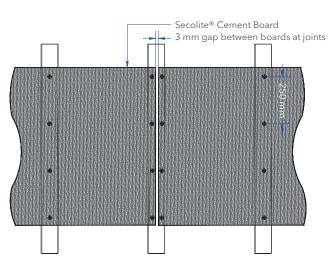
Once the SECOLITE<sup>®</sup> Cement Board has been cut to size if required, offer up the board in the horizontal position with framing members at maximum 600 mm centres. At vertical board edges ensure that the SECOLITE<sup>®</sup> Cement Board is located on the centre line of the framing member.

Once the board is located, use SECOLITE® Screws to fix the board to the framing members.

When fixing adjacent boards ensure that there is a 3mm gap between boards.Screws should be at least 15mm in from the edge of the SECOLITE® Cement Board and spaced at maximum 250 mm centres for single layer application. Screws should not be over tightened and sit flush with the surface.

When installing SECOLITE<sup>®</sup> 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 board layout

Installing SECOLITE® Cement Board

#### TAPING AND JOINTING

Once the SECOLITE® Cement Board has been installed it is important to make the construction weathertight by applying SECOLITE® Joint Filler.

Using SECOLITE<sup>®</sup> Joint filler, push the filler between the gaps in the boards and spread it across the face of the board.





Applying SECOLITE® Joint Filler

Installing SECOLITE® Joint Tape

Firmly embed SECOLITE® Joint Tape (100mm) or SECOLITE® Reinforcement 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 SECOLITE® Joint Filler.



Embedding SECOLITE® Joint Tape



Covering SECOLITE® Joint Tape with SECOLITE® Joint Filler



For external corners, reveals and openings apply SECOLITE® Joint Filler then firmly embed a suitable corner profile, scrape off excess SECOLITE® Joint Filler and then cover. Alternatively apply additional SECOLITE® Joint Tape along the edges.

Allow SECOLITE<sup>®</sup> Joint Filler to set for a minimum of 24 hours.

#### **FINISHING / RENDERING**

When SECOLITE® Cement Board is to be direct rendered please refer to the chosen render manufacturers recommendations.

To ensure that the building remains weathertight it is advisable to seal all joints using SECOLITE® Joint Filler and SECOLITE® Joint Tape prior to applying the finish render.



Skim coating SECOLITE® Cement Board



Embedding SECOLITE® Mesh

# **SOFFIT LININGS**

SECOLITE® Exterior Soffit Linings are designed for exterior use and can be exposed to tough climatic conditions.

With SECOLITE<sup>®</sup> Exterior Soffit design you can achieve a smooth, seamless and monolithic finish and design allowing you to create flat surfaces and a seamless transition from interior to exterior.



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.

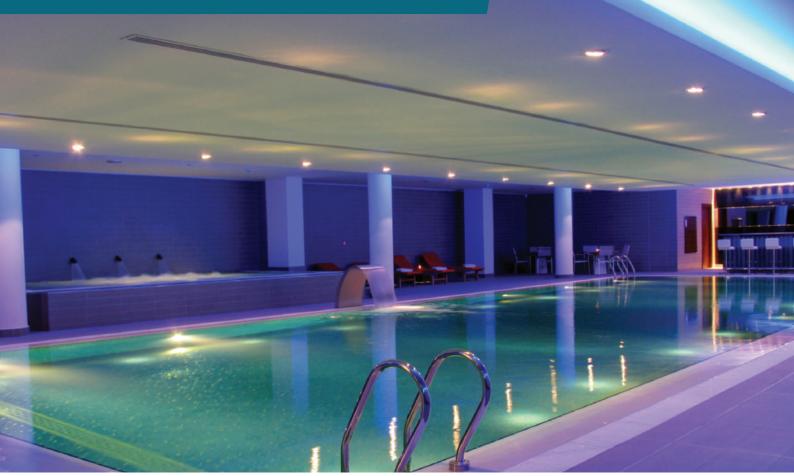
The SECOLITE<sup>®</sup> Cement Board soffits should be finished in a similar manner to the external board. Once all joints are sealed and screw heads spotted with SECOLITE<sup>®</sup> Joint Filler they can be left exposed and un-finished for a maximum of 6 months.

Using SECOLITE<sup>®</sup> 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
- Underpasses



# INTERIOR



# EASY, LIGHT AND ROBUST

SECOLITE<sup>®</sup> Cement Board is a tough, impact-resistant glass fiber reinforced cement board for interior use in wet and humid areas.

Internal areas that are exposed to moisture and high humidity are particularly prone to damage from water. Where materials such as plasterboard or plywood can break down or warp when exposed to prolonged periods of moisture SECOLITE® Cement Board remains dimensionally stable and maintains performances. Saving cost and issues in the long term.

SECOLITE<sup>®</sup> is the perfect board for use even in the most challenging wet and humid conditions for both wall and ceiling applications, making it ideal for everything from swimming pools and saunas to communal showers and kitchen areas.

Manufactured from inorganic materials and highly resistant to water and mold, SECOLITE® Cement Board weighs just 12,5 kg/m<sup>2</sup> per square meter - making it easy to handle and fast to install.

### SECOLITE<sup>®</sup> PERFORMANCE



#### THE FUTURE OF CEMENT BOARD

CE ACCORDING TO EN 12467 AND EN 13501

- 100% moisture resistant
- Resistant to mould and mildew
- A1 Non-combustible complies with European standards
- Robust with high impact resistance and sound insulation
- Manufactured from sustainable materials



#### INSTALLATION

- Only 12,5 kg/m<sup>2</sup> meaning less effort in handling, including overhead installation
- Easy to cut using a simple score-and-snap technique
- No pre-drilling required



#### FINISHING

- Ready keyed for tiling only one layer required for tile finish
- Supports tiling up to 50 kg/m<sup>2</sup>
- Can be taped and jointed using SECOLITE® Joint Compound and SECOLITE® Joint Tape



# INSTALLATION OF INTERIOR WALLS

#### **CREATE SUBSTRUCTURE AND ALIGN THE BOARD**

Ensure metal or timber framing is suitably fixed to the surrounding structure. For best results, use lightweight SECOLITE® metal studs. Stud centers should be at a maximum 600mm centers. Additional horizontal support or reduced stud centers may be required depending on specific performance requirements.

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



Installing framework

Horizontal installation of SECOLITE® Cement Board

In addition to horizontal mounting, vertical mounting is also possible with all SECOLITE® Cement Board panels.

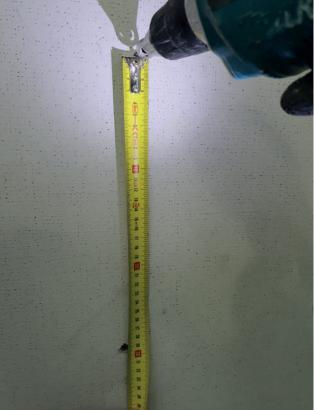
#### **FASTENING WITH SCREWS**

Fasten SECOLITE® Cement Board to the framework with SECOLITE® Screws. First fasten the screws into the center of the cement boards; then work towards the ends and the edges. During installation, make sure the boards are resting on the framework. Screws fixed through SECOLITE® Cement board should penetrate 10mm minimum into steel studs and 25mm minimum into timber studs.

Screws should be spaced at 300mm around the perimeter, and 200mm centres at internal and external corners or openings. Screws should be fixed 15 mm from the edge of the board and set flush with board face without over driving.



Fastening SECOLITE® Cement Board with SECOLITE® Screws



Ensure SECOLITE<sup>®</sup> Screw centres are correct

#### **PLACE NEXT BOARD**

#### OPTION 1: HORIZONTAL INSTALLATION

Install the next SECOLITE<sup>®</sup> Cement Board panel and ensure that the boards are correctly aligned horizontally and vertically. Screw panel to the framework. When fitting subsequent rows of boards, ensure that the vertical joints are offset by a minimum of one stud cavity.



SECOLITE® Cement Board with correct board stagger

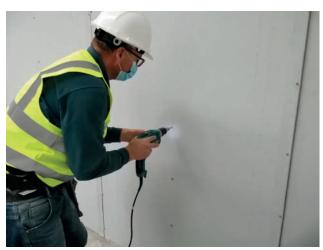


#### OPTION 2: VERTICAL INSTALLATION

Depending on the room height, additional boards must be placed vertically. In this case make sure they are aligned correctly, and the added board height is at least 400 mm.

Insert the SECOLITE® Cement Board into the bed of the adhesive and screw the panel to the framework.

Joint reinforcement of the SECOLITE® Cement Board Indoor panel is achieved by means of the adhesion technique.



Fixing of SECOLITE® Cement Board with SECOLITE® Screws

#### JOINT TREATMENT

#### OPTION 1: SECOLITE® JOINT ADHESIVE (PU)

In order to ensure good connection with SECOLITE® Joint Adhesive (PU), ensure that all board edges are clean and free from dust. Apply SECOLITE® Joint Adhesive (PU) before the next board is placed. Leave the adhesive to harden, after which the excess SECOLITE® Joint Adhesive (PU) can be scraped off (usually the next day).



Installing SECOLITE® Joint Adhesive



Removing excess SECOLITE® Joint Adhesive

#### OPTION 2: SECOLITE® JOINT FILLER & SKIMCOAT AND SECOLITE® JOINT TAPE

All joints should be filled with SECOLITE® Joint Filler & Skimcoat, and then embed SECOLITE® Joint Tape (10 cm) centered over all joints. Apply a thin layer of SECOLITE® Joint Filler & Skimcoat to cover the tape.





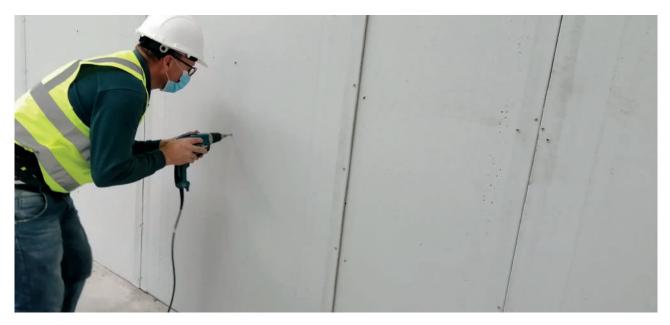
For multi-layer boarding, all horizontal and vertical joints between layers must be offset. Vertical joints by a minimum of one stud cavity, horizontal joints by at least 300 mm. Where double layer boarding is to both sides, the joints between facing boards must also be offset. The first layer of multi-layer boarding can be mounted with butt-joint boards (without adhesive) and fixed at 300mm centres.



Multilayer horizontal installation of SECOLITE® Cement Board

#### **VERTICAL MULTI-LAYER BOARDING (OPTIONAL)**

For multi-layer board configurations, all lateral panel joints must be offset by one stud cavity. Horizontal panel joints, which result from possible addition of boards in the vertical dimension, have to be mounted with an offset of minimum 300 mm. For double-sided, double layer constructions the board joints of the facing boards must also be staggered. The inner layer of SECOLITE® Cement Board can be mounted with butt-joint boards (without adhesive) and fixed at 300mm centers.



Multilayer vertical installation of SECOLITE® Cement Board



#### SURFACE FINISHING OF INTERIOR WALLS

#### TILING

For ceramic tile coverings, (tile dimensions  $\leq$  600 mm x 600 mm), use a flexible adhesive when placing tiles. SECOLITE<sup>®</sup> Cement Boards should be primed prior to tiling. The tile adhesive must – as a minimum – meet the requirements of class C2 according to EN 12004. Tile weight: 50 kg/m<sup>2</sup> (for bigger tile sizes and heavier tiles, further measures apply).



Installation of tiling to SECOLITE® Cement Board

#### **SKIM-COATING**

SECOLITE® Cement Board Indoor can be prepared for painting by applying SECOLITE® Joint Filler & Skimcoat to the full surface (minimum coating depth 4 mm).

SECOLITE® Reinforcement Mesh must be applied and embedded in SECOLITE® Joint Filler & Skimcoat. To achieve a finish level of Q2 apply another thin layer of SECOLITE® Joint Filler & Skimcoat and smooth out the full surface. When dry, the surface can be painted.

Most common painting systems can be used. These include water-based emulsions, matt enamels, polymer resin paints, and epoxy-based enamels.



Skim finishing of SECOLITE® Cement Board with SECOLITE® Skim Finish



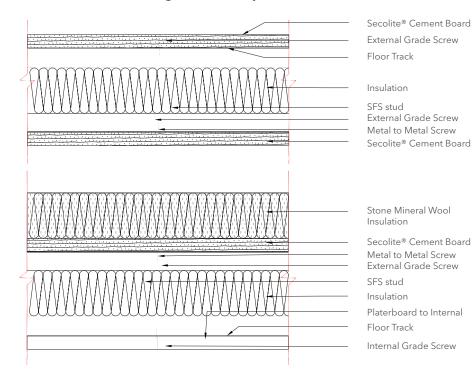
Installation of SECOLITE® Reinforcement Mesh

### DETAILS

suitable cladding

Plan view of an external corner using  ${\tt SECOLITE}^{\circledast}$  Cement Board and suitable cladding

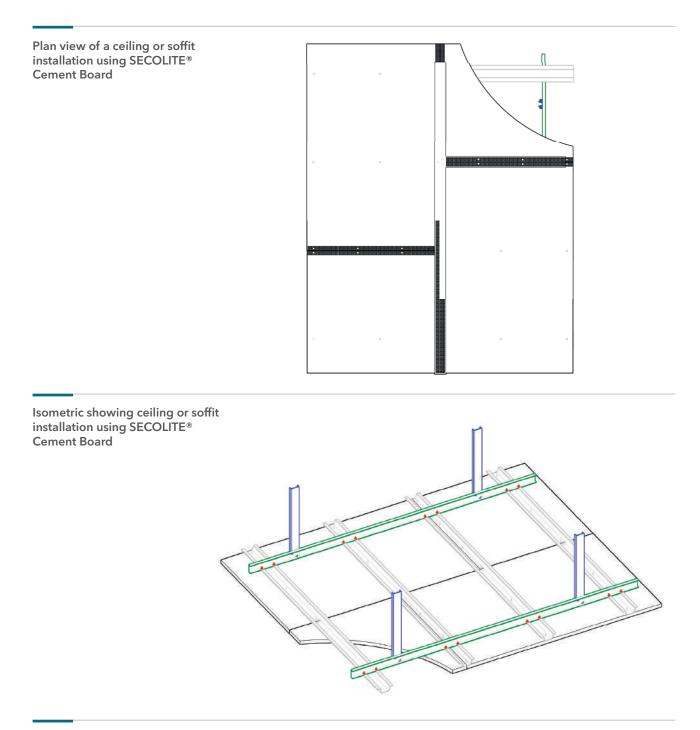
Plan view of a 60 minute FR external wall build up using SECOLITE® Cement Board and suitable cladding or insulation system



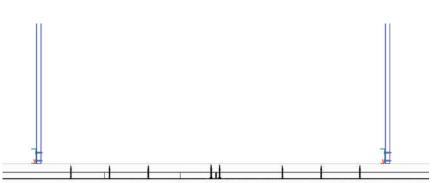
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Section through ceiling installation using SECOLITE® Cement Board



# **SECOLITE® CEMENT BOARDS**

#### SCL 8



Dimensions*	Тес	:h. Data	Truck 25 tons load			40'DV		
	kg/m²	m²/ board	boards/ pal.	boards/ truck	m²/ truck	boards/ pal.	boards	m²/ cont.
8x1800x900	8,6	1,62	56	1 745	2 827	56	1 815	2 940
8x1800x1200	8,6	2,16	56	1 310	2 829	56	1 362	2 942
8x1800x1250	8,6	2,25	56	1 259	2 832	56	1 309	2 945
8x2000x900	8,6	1,80	56	1 563	2 814	56	1 626	2 926
8x2000x1200	8,6	2,40	56	1 182	2 836	56	1 229	2 950
8x2000x1250	8,6	2,50	56	1 130	2 826	56	1 176	2 939
8x2400x900	8,6	2,16	56	1 303	2 814	56	1 355	2 926
8x2400x1200	8,6	2,88	56	985	2 836	56	1 024	2 950
8x2400x1250	8,6	3,00	56	946	2 839	56	984	2 953

\* we can do other dimensions on request

#### SCL 12.5



	Dimensions*	Teo	ch. Data		Truck 25 tons loa	ıd		40'DV	
		kg/m²	m²/ board	boards/ pal.	boards/ truck	m²/ truck	boards/ pal.	boards	m²/ cont.
	12.5x1800x900	13,5	1,62	36	1 112	1 802	36	1 157	1 874
	12.5x1800x1200	13,5	2,16	36	834	1 802	36	868	1 875
	12.5x1800x1250	13,5	2,25	36	802	1 804	36	834	1 877
7	12.5x2000x900	13,5	1,80	36	996	1 793	36	1 036	1 865
	12.5x2000x1200	13,5	2,40	36	753	1 807	36	783	1 880
	12.5x2000x1250	13,5	2,50	36	720	1 801	36	749	1 873
	12.5x2400x900	13,5	2,16	36	830	1 793	36	863	1 865
	12.5x2400x1200	13,5	2,88	36	628	1 807	36	653	1 880
	12.5x2400x1250	13,5	3,00	36	603	1 809	36	432	1 296
	+			1					

\* we can do other dimensions on request

#### **SCL 15**

	Dimensions*	Тео	ch. Data		Truck 25 tons loa	ıd		40'DV	
		kg/m²	m²/ board	boards/ pal.	boards/ truck	m²/ truck	boards/ pal.	boards	m²/ cont.
OF CERERT BOARD	15x1800x900	16,2	1,62	30	927	1 501	30	660	1 069
CMENT	15x1800x1200	16,2	2,16	30	695	1 502	30	510	1 102
BOARD	15x1800x1250	16,2	2,25	30	668	1 504	30	480	1 080
	15x2000x900	16,2	1,80	30	830	1 494	30	600	1 080
1950, ISER	15x2000x1200	16,2	2,40	30	628	1 506	30	450	1 080
	15x2000x1250	16,2	2,50	30	600	1 501	30	450	1 125
	15x2400x900	16,2	2,16	30	692	1 494	30	510	1 102
	15x2400x1200	16,2	2,88	30	523	1 506	30	390	1 123
	15x2400x1250	16,2	3,00	30	503	1 508	30	360	1 080

\* we can do other dimensions on request



### SECOLITE® COMPLIMENTARY PRODUCTS

#### **SCREWS**

	Description	Weight / Dimensions	Packing	Min. order quantity
17	SECOLITE® Cement Board screws PN. To fix SECOLITE® Cement Board on timber and metal frame works	Length: 25 mm; Wall: 15 pcs/m <sup>2</sup> for stud spacing 600/625 mm; Ceiling: 25 pcs/m <sup>2</sup> for profile spacing 300/312,5 mm	500 pcs/box; 24 boxes/pack; 24 packs/pallet	1 pack = 24 boxes
	(thickness up to 0,7 mm)	Length: 40 mm; Wall: 15 pcs/m <sup>2</sup> for stud spacing 600/625 mm; Ceiling: 25 pcs/m <sup>2</sup> for profile spacing 300/312,5 mm	500 pcs/box; 12 boxes/pack; 24 packs/pallet	1 pack = 12 boxes
	SECOLITE® Cement Board screws SD. To fix SECOLITE® on metal frame works (thickness from 0,8 to 2 mm)	Length: 40 mm; Wall: 15 pcs/m² for stud spacing 600/625 mm	250 pcs/box; 24 boxes/pack; 24 packs/pallet	1 pack = 24 boxes

#### **JOINT TAPE**

0	Description	Weight / Dimensions	Packing	Min. order quantity
9	For interior and exterior application	125 mm wide; 50 m/roll	1.500 m²/pallet; 240 rolls/pallet	-

#### **JOINT FILLER & SKIM COAT**

	Description	Weight / Dimensions	Packing	Min. order quantity
SECOLIE SKIM COAT WAR WAR WAR	Cement based filling material for joints and full-surface skimcoating, interior and exterior application	20 kg/bag; usage is approx. 3 kg/m² of SECOLITE® Cement Board	60 bags/pallet	1 pallet

#### **JOINT ADHESIVE**

Description	Weight / Dimensions	Packing	Min. order quantity
For the bonding of SECOLITE® Cement Board in the wall. Not used in the ceiling area	300 ml/cartridge; Usage is approx. 25 ml/m joint	12 cartridges/box	-

#### **PRIMER**

	Description	Weight / Dimensions	Packing	Min. order quantity
SECO LITE PRIMER	Ready to use synthetic dispersion. Ensure max. adhesion of render finishes. Highly effective moisture barrier	20 kg/pail; Usage = 450 g/m²	33 pails/pallet	1 pallet

#### WATER RESISTIVE BARRIER

-	Description	Weight / Dimensions	Packing	Min. order quantity
	Light weight but strong Breather Membrane for exterior wall applications. Excellent water resistance but still high breathability	116 g/m²; Width: 1.5 m; Roll: 75 m²; Roll weight: 9 kg	60 rolls/pallet	-

#### **REINFORCEMENT MESH**

	Description	Weight / Dimensions	Packing	Min. order quantity
SECOLIE	Coating. Applied on Basecoat or Joint Filler & Skim Coat	1.000 mm wide; 160 g/m²; 50 m²/roll	1.500 m²/pallet; 30 rolls/pallet	-



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