



TECHNICAL SUBMITTAL

| | | | | | |
|------------------------|--------------|----------------------|---------------|---------------------|------------------|
| Project Name: | Union Wharf | Tech Sub Ref: | TS-178-001 | Status | For Approval |
| Project Nr: | SML 178 | Tech Sub Issue Date: | 04 March 2025 | Due Date for Return | 11 March 2025 |
| Tech Sub Submitted By: | Paul Francis | Tech Sub Issued to: | AD Group | Category: | Façade Remedials |

| Item | Approval Required |
|------|---|
| | <p>Please find below technical details for Benx Supertech Timber Effect Cladding</p> <p>Documents being submitted under this form:</p> <div><div>1</div><div>Benx Supertech Brochure</div></div> <div><div>2</div><div>Benx Supertech Declaration of Performance</div></div> <div><div>3</div><div>Benx Supertech BBA Certificate</div></div> <div><div>4</div><div>Benx Supertech Material Safety Data Sheet</div></div> <p>Final Colour Selection to be subject to client acceptance.</p> <div><div>Note</div><div>Please review the information provided and advise / request further information on any areas whereby you require any further information. Please satisfy yourselves the system complies with all the Clients requirements for the scheme.</div></div> |

| Item | Response | |
|--------------|---------------|-------|
| | | |
| Response By: | On Behalf Of: | Date: |
| | | |



A1 Fire Classification
BS EN 13501-1: 2018

Supertech Weatherboard

Supertech Weatherboard is a simple to install, fully ventilated rainscreen cladding system which has an appearance similar to that of timber but the durability and strength of cement.

Made from refined cellulose fibre cement, Supertech Weatherboard has high levels of impact resistance, excellent weathering properties and outstanding levels of durability. With a minimum life expectancy of 30 years, it is a façade which will withstand the demanding test of time.

Supertech Weatherboard is lightweight, requires low maintenance, can be used in the same way as timber and allows you to create truly stunning façades.

Offering a range of colour painted finishes, Supertech Weatherboard is an attractive alternative to traditional timber boarding and plastic effect PVCu cladding. Supertech Weatherboard can be installed either horizontally in a traditional lapped style (most popular way) or in a vertically lapped style.

Used by architects, national house builders, homeowners and contractors Supertech Weatherboard is factory finished and provides substantial design opportunities.

Key features



Fire classification to BS EN 13501-1: 2018 A1

- UK factory applied colour
- High levels of weather resistance
- Easy to install and lightweight
- Range of colour matching aluminium trims available
- Resistant to rot, fungus or insect attacks
- Able to match to any RAL, BS or NCS colour
- Low maintenance, long performance life

Suitable for the following construction types



Steel frame



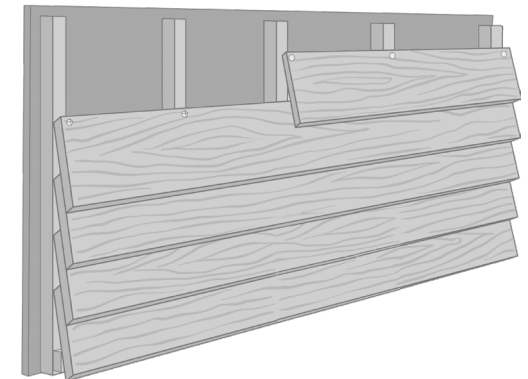
Timber frame



Modular / Offsite



Masonry



Designed to stand the test of time

| | |
|--|---|
| Nominal density | 1380kg/m ³ |
| Fibre-cement flat sheets. | BS EN 12467:2012+A2:2018 Class A |
| Thermal conductivity | 0.30 W/mk |
| Moisture content | ≤ 8% |
| Moisture movement (EMC to saturated) | ≤ 0.06% - 0.08% |
| Reaction to fire BS EN 13501-1:2018 | Class A1 (non-combustible) |
| Biological resistance | Highly resistant |
| Surface condition | Front face: Painted Back face: Textured |
| Substrate durability (life expectancy min) | 30 years |
| Standard board size | 3660 x 190mm |
| Special order | 3660 x 230mm |
| Thickness | Natural 7.5mm Painted 7.5mm |
| Weight | Natural 10.95kg/m ² Painted 11.10kg/m ² |
| Dimensional tolerance | |
| Length | +3/-3mm |
| Width | +2/-2mm |
| Thickness | +0.6/-0.2mm |
| BBA Certification Number | 19/5708 |

Calculation of board quantity

190mm - Board coverage 0.59m² per board @ 30mm over lap.

230mm - Board coverage 0.73m² per board @ 30mm over lap.

Workability

Our Supertech Weatherboard can be cut, drilled and nailed with conventional woodworking tools in a similar fashion to timber. For cutting the product in any volume, we recommend the use of an RCM Poly Crystalline Diamond Dart Blade to avoid excessive wear on other blades. Alternatively, RCM offer a complete fabrication service, please contact our technical department for details. Please adhere to health & safety guidance when cutting Supertech Weatherboard.

Supertech Weatherboard is installed using screws or nails in a secret fix method. There is no requirement for pre-drilling when using recommended fixing centres. For the top and bottom planks, where fixings are visible, we are able to supply colour-matched fixings.

The Supertech System

Requests from our clients to offer the Supertech range as an element in a full cladding system has been growing considerably.

Although we aim to offer our clients maximum flexibility, we recognize that bringing all of the key components under one supplier makes our offer far more appealing and helps reduce risk of product incompatibility issues.

A-rated, fibre cement Supertech cladding is a fire safe, low maintenance and durable solution for those wanting to improve both the appearance and efficiency of their home. Furthermore, it is easy to install and can be fitted to a range of timber and metal sub frames.

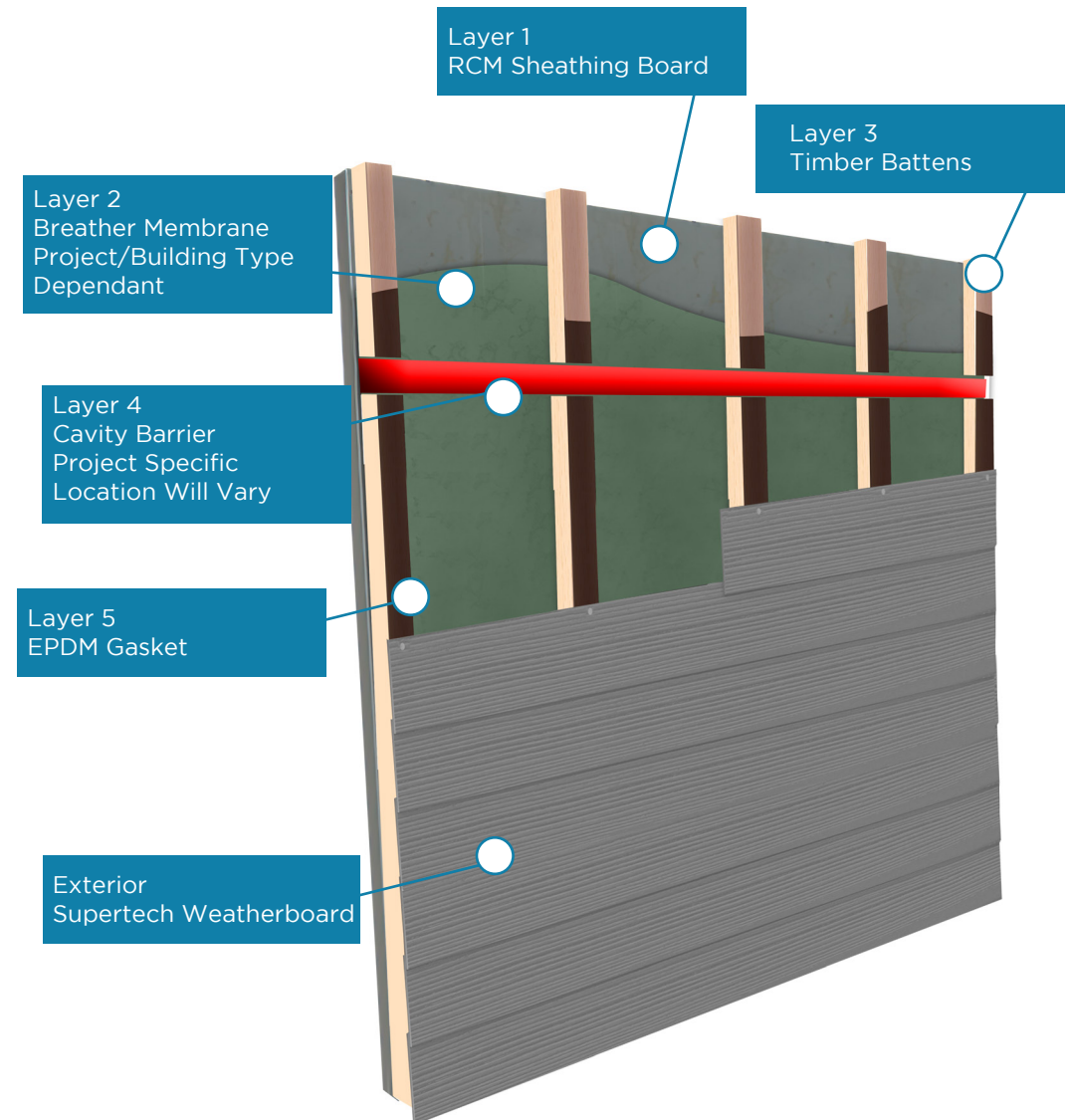
As with all of our façade systems, we recommend a layer-by-layer approach to installation; Supertech Weatherboard can be installed in 5 key layers in-to-out:

Layer 1, the substrate

We recommend the use of RCM sheathing boards as an ideal substrate. We offer a range of A rated fibre cement and gypsum board options for this purpose.

Layer 2, the breather membrane

Project and building dependant, a suitable breather membrane (RCM can supply) will provide a necessary barrier against water penetration from the outside while allowing migration of water vapour through the membrane from inside the building.



Installing Supertech Weatherboard

Layer 3, the sub frame

Traditionally the sub frame for Weatherboard has comprised of 38mm deep vertical timber battens which allow for a free flowing cavity between the breather membrane and the weatherboard. Where required, Benx offer an alternative range of A1 Non combustible support frames, these include:

Aluminum Z profile. Cavity depth 38mm, this is typically used for low to medium rise applications and can be fixed back to both masonry and framed buildings. (please refer to image below)

Allface Helping Hand system. Cavity depth 50mm-300mm. This is typically used on medium to high rise applications where the cavity depth needs to vary and can be fixed back onto either masonry or framed buildings. (please refer to image below)



Please note that timber battens are not part of our portfolio.

Layer 4, Cavity Barriers

The use and specific location of cavity barriers behind this ventilated weatherboard solution can vary depending on building make up, use and the various stakeholders involved.

RCM offer a range of intumescent cavity barriers which are typically used in conjunction with either a timber batten or on our Z profile sub frame. The use of an intumescent cavity barrier allows for drainage and air flow within the cavity whilst acting as a smoke and heat barrier, activating if required.

On the Allface support frame, this requires the use of OSCB's (not shown on this schematic) which can vary considerably depending on cavity depth. RCM are also able to supply these when supplied as a complete system.

Layer 5, EPDM Gasket

An EPDM gasket (ethylene propylene diene terpolymer - an extremely durable synthetic rubber tape) is fixed to each vertical element to provide additional weather protection (and prevent premature rotting if using timber).

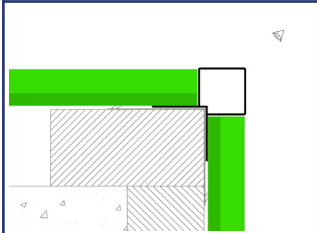
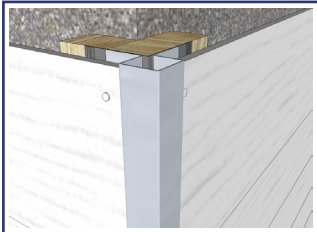
Our A1 Supertech Weatherboard, which is coated at our production facility in Staffordshire, is then simply screwed or nailed through the EPDM gasket onto the subframe using the appropriate RCM supplied fixings.

With BBA accreditation and a flexible colour range, all to A1 classification, we believe our offer to be very attractive to the market.

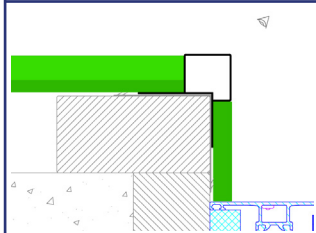
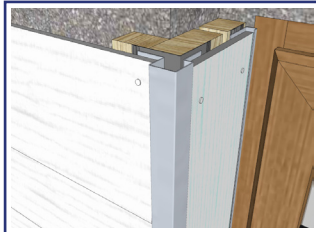


The complete system

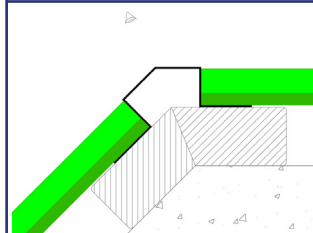
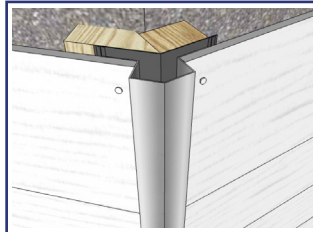
The Supertech Weatherboard range comes with a full collection of colour matched screws, aluminium profiles and accessories providing a complete cladding solution. Please refer to the Supertech Weatherboard installation guide for more information on the installation of profiles.



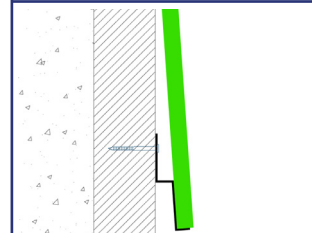
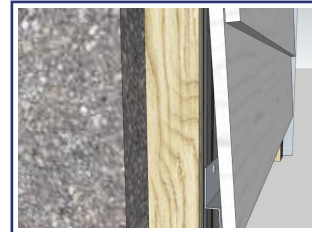
Symmetric external corner



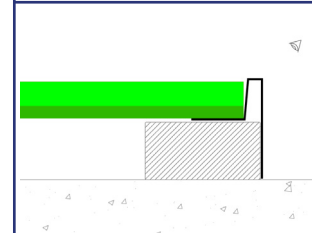
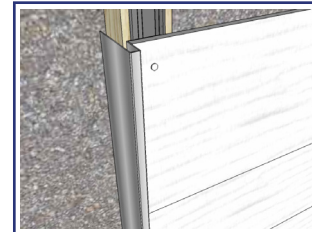
Asymmetric external corner



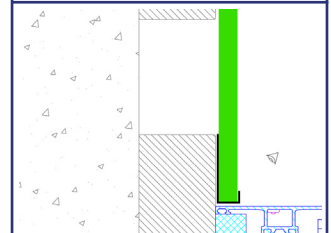
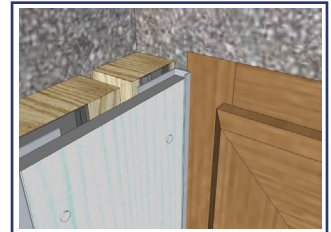
External bay corner



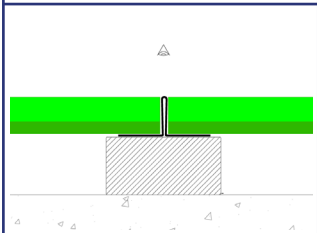
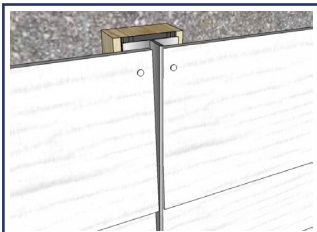
Starter profile



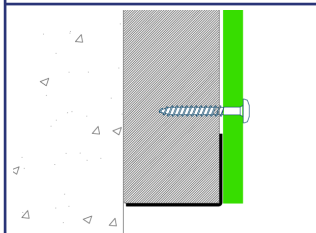
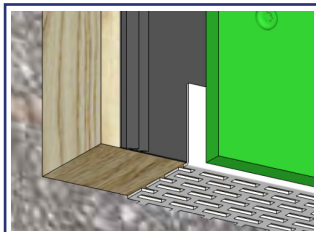
Cap end and batten cover



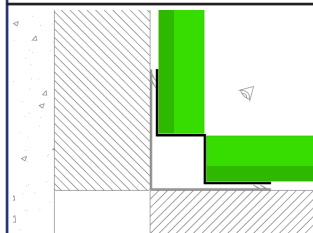
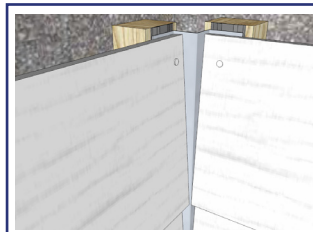
Small cap end profile



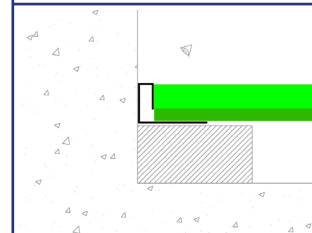
Vertical joint profile



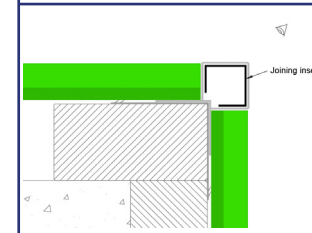
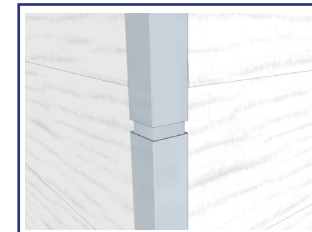
Perforated profile



Internal corner



Large cap end profile



External corner joining trim

Beautiful, timeless facades



A spectrum of colours for creativity

Supertech Weatherboard has a unique colour palette and comes in a standard range of painted colours. Whether your project is rural or urban, it is important that the building blends seamlessly into the landscape. As a result, just in case we don't have the colour you require in our standard collection, we are able to match Supertech Weatherboard to any RAL, BS or NCS colour. Minimum quantities required.

The striking and beautiful painted collection

The painted collection is made up of 18 of the most popular RAL colours used for weatherboard in the UK. With a range spanning from white to black, there is a colour to suit your landscape and create your dream project. We offer small minimum quantities and short lead times as standard.



Fire Rating:  **A1** Classification on all colours



Traffic White
RCM/WP01/S



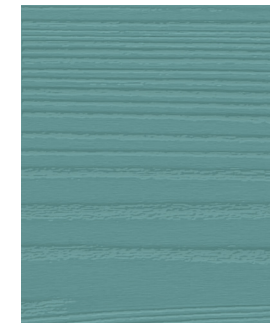
Light Grey
RCM/WP02/S



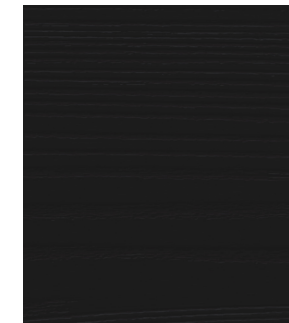
Oyster White
RCM/WP03/S



Light Ivory
RCM/WP04/S



Pastel Turquoise
RCM/WP06/S



Jet Black
RCM/WP07/S

A spectrum of colours for creativity



Iron Grey
RCM/WP08/S



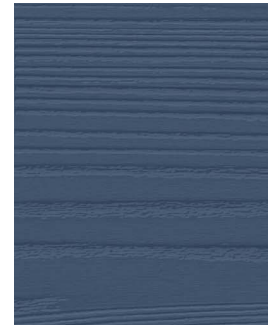
Dark Grey
RCM/WP09/S



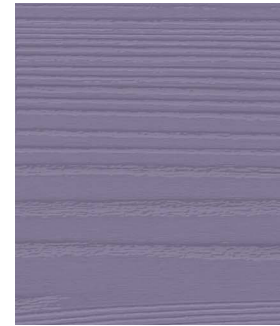
Khaki Brown
RCM/WP10/S



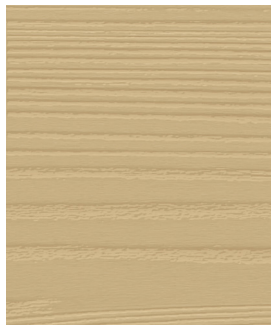
Dark Brown
RCM/WP11/S



Lavender Blue
RCM/WP12/S



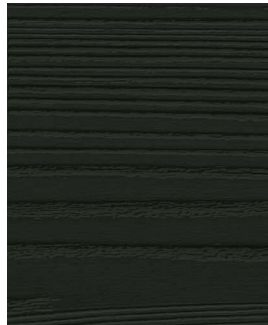
Lilac Blue
RCM/WP13/S



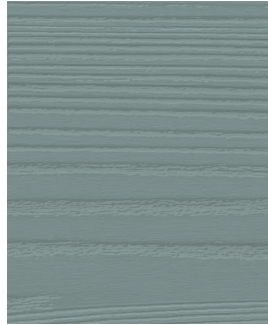
Sand Yellow
RCM/WP14/S



Red
RCM/WP15/S



Pine Green
RCM/WP16/S



Blue Grey
RCM/WP17/S





Grey Brown
RCM/WP18/S



Grey Green
RCM/WP20/S

Thank you for taking the time to review our Supertech Weatherboard brochure.
If you require any further information on our products or services, please contact us.

Sales  0800 612 4662  sales@benx.co.uk

Technical  0800 488 0531  technicalservices@benx.co.uk  www.benx.co.uk



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DECLARATION OF PERFORMANCE

Reference N° 0009

Product Description Cellulose Fibre Cement Board

Brand name and/or product code RCM Supertech

Intended use in accordance with hEN as foreseen by manufacturer:

Supertech a cellulose fibre cement board for use as an exterior non-loadbearing cladding on vertical timber or metal supports to external walls of new and existing domestic and non-domestic buildings

Registered trade name of manufacturer and contact address:

Roofing & Cladding Materials Ltd
Unit 27 Rosevale Road
Parkhouse Industrial Estate West
Newcastle under Lyme
Staffordshire ST5 7EF

System of assessment and verification of consistency of performance of named product(s):

AVCP System 3

Harmonised Standard:

The Manufacturer has undertaken self-declaration having carried out ITT and FPC conformity requirements of BS EN 12467:2012+A1:2018. Notified body 1812 BS EN 13501-1:2018

| Declared performance | | |
|--------------------------------|-------------|------------------------------------|
| Essential characteristic | Performance | Harmonised technical specification |
| Mechanical resistance | Class 2 | BS EN 12467:2012+A1:2018 |
| Reaction to fire | A1 | BS EN 13501-1:2018 |
| Water permeability | Pass | BS EN 12467:2012+A1:2018 |
| Durability against warm water | Pass | BS EN 12467:2012+A1:2018 |
| Durability against soak/dry | Pass | BS EN 12467:2012+A1:2018 |
| Durability against freeze/thaw | Pass | BS EN 12467:2012+A1:2018 |
| Durability against heat/rain | Pass | BS EN 12467:2012+A1:2018 |

The performance of RCM Supertech is in conformity with the declared performance.

This declaration of performance is issued under the sole responsibility of Roofing & Cladding Materials Ltd.

Signed for and on behalf of Roofing & Cladding Materials Ltd.

Ian Quinton – Managing Director

Roofing & Cladding Materials Ltd

25/26 Rosevale Road
Parkhouse Ind. Est. West
Newcastle-under-Lyme
Staffordshire ST5 7EF

Tel: 0800 612 4662

e-mail: info@rcmltd.biz

website: www.buildingboards.co.uk



Agrément Certificate

19/5708

Product Sheet 3

FIBRE-CEMENT WALL BOARDS

SUPERTECH PLANK

This Agrément Certificate Product Sheet⁽¹⁾ relates to Supertech Plank, a fibre-cement plank for use as an exterior non-loadbearing cladding on vertical timber or metal supports over masonry or brickwork of new and existing domestic and non-domestic buildings, subject to height limitations.

(1) Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Strength and stability — the product can accept the wind actions likely to be met in service in the UK (see section 6).

Behaviour in relation to fire — constructions incorporating the product can achieve a reaction to fire classification of A1 or A2, s1-d0 and may be restricted in some cases (see section 7).

Weathertightness — the product, when installed, is not weathertight, and in sheathed framework applications must be used in conjunction with a suitable breather membrane (see section 8).

Durability — the cladding product is expected to have a service life in excess of 30 years (see section 10).

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 28 September 2022

Originally certificated on 9 December 2019.

Hardy Giesler
Chief Executive Officer

The BBA is a UKAS accredited certification body – Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

1st Floor Building 3
Croxley Park, Watford
Herts WD18 8YG

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tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

Regulations

In the opinion of the BBA, Supertech Plank, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



The Building Regulations 2010 (England and Wales) (as amended)

| | | |
|---------------------|--------------|---|
| Requirement: | A1 | Loading |
| Comment: | | The product is acceptable for use as set out in section 6.4 of this Certificate. |
| Requirement: | B3(4) | Internal fire spread (structure) |
| Comment: | | The product can contribute to satisfying this Requirement. See section 7.2 of this Certificate. |
| Requirement: | B4(1) | External fire spread |
| Comment: | | The product is unrestricted by this Requirement, however the timber supports may be restricted in some cases. See sections 7.1, 7.4 and 7.5 of this Certificate. |
| Requirement: | C2(b) | Resistance to moisture |
| Comment: | | The product does not provide a watertight or airtight facing but will resist the passage of rainwater to the supporting structure. See section 8.1 of this Certificate. |
| Regulation: | 7(1) | Materials and workmanship |
| Comment: | | The product is acceptable. See section 10 and the <i>Installation</i> part of this Certificate. |
| Regulation: | 7(2) | Materials and workmanship |
| Comment: | | The product is restricted by this Regulation in some cases. See sections 7.1 and 7.3 to 7.6 of this Certificate. |



The Building (Scotland) Regulations 2004 (as amended)

| | | |
|--------------------|------------------|--|
| Regulation: | 8(1)(2) | Fitness and durability of materials and workmanship |
| Comment: | | The product can contribute to a construction satisfying this Regulation. See sections 9 and 10 and the <i>Installation</i> part of this Certificate. |
| Regulation: | 9 | Building standards applicable to construction |
| Standard: | 1.1(a)(b) | Structure |
| Comment: | | The product is acceptable for use, with reference to clause 1.1.1 ⁽¹⁾⁽²⁾ of this Standard. See section 6.4 of this Certificate. |
| Standard: | 2.4 | Cavities |
| Comment: | | The product can contribute to satisfying this Standard with reference to clauses 2.4.2 ⁽¹⁾⁽²⁾ , 2.4.4 ⁽¹⁾ and 2.4.6 ⁽¹⁾⁽²⁾ . See section 7.2 of this Certificate. |
| Standard: | 2.6 | Spread to neighbouring buildings |
| Standard: | 2.7 | Spread on external walls |
| Comment: | | The product is restricted by these Standards in some cases, with reference to clauses, 2.6.4 ⁽¹⁾⁽²⁾ , 2.6.5 ⁽¹⁾ , 2.6.6 ⁽¹⁾⁽²⁾ and 2.7.1 ⁽¹⁾⁽²⁾ . See sections 7.1, 7.3 to 7.5 and 7.8 of this Certificate. |
| Standard: | 3.10 | Precipitation |
| Comment: | | The product does not form a watertight or airtight facing but will resist the passage of rainwater to the supporting structure, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.5 ⁽¹⁾⁽²⁾ of this Standard. See section 8.1 of this Certificate. |

| | | |
|-------------|--------|---|
| Standard: | 7.1(a) | Statement of sustainability |
| Comment: | | The product can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard. |
| Regulation: | 12 | Building standards applicable to conversions |
| Comment: | | Comments in relation to the product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ . |
| | | (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic). |



The Building Regulations (Northern Ireland) 2012 (as amended)

| | | |
|-------------|-------------|--|
| Regulation: | 23(a)(i) | Fitness of materials and workmanship |
| Comment: | (iii)(b)(i) | The product is acceptable. See section 10 and the <i>Installation</i> part of this Certificate. |
| Regulation: | 28(b) | Resistance to moisture and weather |
| Comment: | | The product does not form a watertight or airtight facing but will resist the passage of rainwater to the supporting structure. See section 8.1 of this Certificate. |
| Regulation: | 30 | Stability |
| Comment: | | The product is acceptable for use as set out in section 6.4 of this Certificate. |
| Regulation: | 35(4) | Internal fire spread (structure) |
| Comment: | | The product can contribute to satisfying this Regulation. See section 7.2 of this Certificate. |
| Regulation: | 36(a) | External fire spread |
| Comment: | | The product is restricted by this Regulation in some cases. See sections 7.1, 7.3 to 7.5 and 7.7 of this Certificate. |

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See sections: 1 *Description* (1.2), 3 *Delivery and site handling* (3.1, 3.4 and 3.5) and 13 *General* of this Certificate.

Additional Information

NHBC Standards 2022

In the opinion of the BBA, Supertech Plank, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Part 6 *Superstructure (excluding roofs)*, Chapter 6.9 *Curtain walling and cladding*.

CE marking

The Certificate holder has taken the responsibility of CE marking the product in accordance with harmonised European Standard BS EN 12467 : 2012.

Technical Specification

1 Description

1.1 Supertech Plank is an external surface colour coated cellulose fibre-cement plank comprising ordinary Portland cement, crystalline silica (quartz) and cellulose, which satisfies the requirements of Category A, Class 2 boards to BS EN 12467 : 2012.

1.2 The product is available with the nominal characteristics in Table 1.

| Table 1 Nominal characteristics | | | |
|---------------------------------|------|--|------|
| Characteristic (unit) | | | |
| Thickness (mm) | 7.5 | 9 | 12 |
| Width (mm) | | | |
| Length (mm) | | 190 and 230 | |
| Edge profile | | 3000 or 3600 | |
| Mass (kg·m ⁻²) | 10.3 | Square | |
| Modulus of rupture | | 12.4 | 16.5 |
| Mean density | | 10.3 | |
| Colour (reverse surface) | | 1375 ⁽¹⁾ | |
| Colour (front surface) | | Light Grey ⁽²⁾ | |
| Finish (front surface) | | Light Grey ⁽²⁾ , Various colours ⁽³⁾ | |
| | | Woodgrain textured or smooth | |

(1) 8% moist content equilibrium.

(2) Unpainted.

(3) Painted.

1.3 The specifications of the fixings are as follows:

- decorative wing tip screws — 4.8 mm shank diameter, 38 mm length with a 10 mm diameter countersunk head screw, with minimum 500 hours salt-spray corrosion resistance, used to attach the planks to steel support (for exposed fixings)
- countersunk head screw — 4.2 mm shank diameter, 42 mm length with a 10 mm diameter, with minimum 500 hours salt-spray corrosion resistance, used to attach the planks to steel support
- nail fixings — 2.65 by 40 mm with a 7 mm head diameter annular ring shank, to BS 1202-1 : 2002 for attaching the planks to the timber batten support.

Note: Consult the Certificate holder for advice concerning the specification of fixings in marine environments.

1.4 Components specified for use with the product, but outside the scope of this Certificate, include:

- vertical profiles⁽¹⁾ — used at corner, end, joint, internal and external corners (fixed for protection and aesthetics of the cladding system)
- starter profile⁽¹⁾ — metal track to angle the base plank and provide a level plane
- ventilation grille⁽¹⁾ — perforated profile available in various widths to prevent insects and pests entering through the cavity ventilation gap used at base, top and window openings of cladding
- wall breather membrane — UV durable to BS EN 13859-2 : 2014, used in conjunction with sheathing on framed applications
- timber battens — minimum 47 by 38 mm preservative-treated battens used as vertical supports for the planks at maximum 600 mm centres, ensuring the specified fixings are fully embedded into the wall substrate
- steel sub-frame — vertical supports at 600 mm maximum centres, fixed to the substrate wall, ensuring the specified fixings are fully embedded into the wall substrate
- sheathing — of a suitable material, used in conjunction with timber framework substrate walls
- coatings — stain and paint finishes, to provide protective or decorative finishes used with the product
- fixings — used for fixing the sub-frame to the substrate wall and connecting the sub-frame rails to studs

- EPDM joint tape — available in various widths, used between the planks and the sub-frame to provide additional weather protection.

(1) Available from the Certificate holder in colour and sizes to suit the product.

2 Manufacture

2.1 The raw materials of ordinary Portland cement, crystalline silica and cellulose are mixed in a controlled process and poured out to form the planks prior to the autoclaving. Once hardened, the product is finished by cutting and drying before storage. The manufacturing process and quality controls are in accordance with BS EN 12467 : 2012.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The product is manufactured in Malaysia and is marketed in the UK by the Certificate holder.

3 Delivery and site handling

3.1 The product is supplied covered with polythene on timber pallets and can be offloaded either by mechanical handling equipment or by manually removing individual planks. Each pallet bears a label including the load number, product name, product size, quantity and the BBA logo incorporating the number of the Certificate.

3.2 Each plank is marked with a unique manufacturing and reference code.

3.3 The planks must be stored on a firm, flat and level surface with sufficient support to prevent bowing. To prevent efflorescence, the planks should be stored under cover and kept ventilated and dry prior to fixing. If the planks become wet, they must be sufficiently dried prior to use.

3.4 Manual off-loading of the planks should be carried out with care to avoid unnecessary strain and injury.

3.5 The product includes crystalline silica and reference should be made to the current version of EH40/2005. In particular, when cutting, drilling or sanding in confined areas, dust levels should be controlled using suitable extraction equipment.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Supertech Plank.

Design Considerations

4 Use

4.1 Supertech Plank is suitable for use as a decorative and protective exterior non-loadbearing cladding on vertical timber or metal supports over masonry, brickwork or sheathed timber-frame walls of new and existing buildings. The planks are supported at 600 mm maximum centres between timber/steel supports. It is essential that walls are designed and constructed in accordance with this Certificate, the Certificate holder's instructions and the relevant regulatory guidance. The use of the plank is restricted in some cases (see section 7).

4.2 The plank satisfies Category A⁽¹⁾ and Class 2 requirements in accordance with BS EN 12467 : 2012.

(1) Product intended for applications where they may be subjected to heat, high moisture and severe frost.

4.3 The plank sub-frame must be structurally sound, and designed and constructed in accordance with the requirements of the relevant national Building Regulations and Standards, namely:

- brickwork or blockwork walls are designed and constructed in accordance with the relevant sections of BS EN 1996-1-1 : 2005, BS EN 1996-1-2 : 2005, BS EN 1996-2 : 2006 and BS EN 1996-3 : 2006 and their UK National Annexes, and PD 6697 : 2019, or one of the technical specifications given in the relevant documents supporting the national Building Regulations
- timber frame walls are designed and constructed in accordance with the relevant sections of BS EN 1995-1-1 : 2004 and its UK National Annex, and preservative-treated where necessary, in accordance with BS 8417 : 2011. Guidance on recommended wood preservation is also given in *NHBC Standards 2022, Part 3 General, Chapter 3.3 Timber preservation (natural solid timber)*
- steel frame walls are designed and constructed in accordance with the relevant sections of BS EN 1993-1-1 : 2005 and its UK National Annex. The installation of vertical timber battens or metal support rails must be aligned and fixed directly through to the vertical structural steel framework.

4.4 Ventilation and drainage must be provided behind the cladding. All ventilation openings around the periphery of a cladding system incorporating the panels should be suitably protected with mesh to prevent the ingress of birds, vermin and insects.

4.5 Care should be taken to ensure sufficient time is allowed for complete fixation or drying of the timber preservative before the plank is fixed.

4.6 The fixings of the battens/metal supports to the timber/steel frame substrate wall must go through the sheathing board into the structural frame.

5 Practicability of installation

The product is designed to be installed by a competent builder, or contractor, trained and experienced with this type of product.

6 Strength and stability

Wind loading

6.1 The wind actions on the wall should be calculated in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex. Special consideration should be given to locations with high wind load coefficients as additional fixings may be necessary. In accordance with BS EN 1990 : 2002, it is recommended that a partial load factor of 1.5 is used to determine the design wind load to be resisted by the product.

6.2 The substrate wall must have sufficient strength to resist independently the loads imparted directly by the cladding system and wind actions normally experienced in the UK, as well as any in plane force effects. The supporting sub-frame must have sufficient stiffness, such that its deformation does not affect the performance of the plank. No contribution to the structural resistance of the wall should be attributed to the plank.

6.3 A suitably qualified and experienced individual must check the design and installation of the cladding and must ensure that:

- the design of the sub-frame and its fixings is in accordance with the relevant codes and Standards, such as to limit mid-span deflections to span/200 and cantilever deflections to span/150
- the planks are fixed to the sub-frame using the specified fixings (see section 1.3)
- fixing of the timber/steel sub-frame to the supporting wall has adequate tensile pull-out strength and corrosion resistance (not covered by this Certificate). An appropriate number of site-specific pull-out tests must be conducted on the substrate wall to determine the minimum pull-out resistance to failure of the fixings. The characteristic pull-

out resistance should be determined in accordance with the guidance given in EOTA TR055, using 50% of the mean value of the five smallest measured values at the ultimate load.



6.4 When tested for dynamic wind loading in accordance with ETAG 034 : 2012, Part 1, wall cladding consisting of the 7.5 mm Supertech Plank was found to have the design wind load resistances shown in Table 2 of this Certificate. The design wind load resistance was evaluated by applying a partial material factor of 2.0 to the failure values. The mode of failure was by pull-through of the fixing (screws and nails) through the board. The 9 and 12 mm planks may be taken to have the same performance.

Table 2 Design wind load resistance

| Construction type | Design wind load resistance ⁽³⁾ (kPa) | Distance between vertical support rails/battens (mm) | Horizontal distance between fixing centres (mm) |
|---|--|--|---|
| 7.5 mm Supertech Plank using nails on timber batten ⁽¹⁾ sub-frame | 1.2 | 600 | 300 |
| 7.5 mm Supertech Plank using wing tip screws on metal rail ⁽²⁾ sub-frame | 1.8 | 600 | 300 |

(1) Timber sub-frame: 38 mm depth x 47 mm width timber battens at 600 mm centres

(2) Steel sub-frame: 1.2 mm thick x 100 mm base x 50 mm flange x 12 mm return metal studs at 600 mm centres

(3) With a partial material factor of 2.0

Impact

6.5 When tested for resistance to hard and soft body impacts, Supertech Plank, when installed with vertical supports at no more than 600 mm spacing, was found to be suitable for use in the areas defined under Use Categories III and IV as defined in ETAG 034 : 2012, Part 1, Table 4, an extract of which is reproduced in Table 3 of this Certificate.

Table 3 Definition of Use Categories (reproduced from ETAG 034, Part I, Table 4)

| Use Category | Description |
|--------------|--|
| I | A zone readily accessible at ground level to the public and vulnerable to hard body impacts but not subjected to abnormally rough use. |
| II | A zone liable to impacts from thrown or kicked objects, but in public locations where the height of the kit will limit the size of the impact; or at lower levels where access to the building is primarily to those with some incentive to exercise care. |
| III | A zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects. |
| IV | A zone out of reach from ground level. |

Note: Categories I and II are shown for information only and are not suitable for this product.

7 Behaviour in relation to fire



7.1 The planks achieved the reaction to fire classifications in Table 4. These classifications may not be achieved by other constructions, which should therefore be evaluated by reference to the requirements of the documents supporting the national Building Regulations and any consequent restrictions imposed by those documents, on a case-by-case basis

Table 4 Reaction to fire classification

| Classifications | Products | Construction ⁽¹⁾ | Classification method/report ⁽²⁾ |
|-----------------|-------------------------------------|--|---|
| A2-s1, d0 | Uncoated planks ⁽³⁾ | Cavity \geq 40 mm over any A1 or A2 substrate with a density \geq 480 kg·m ⁻³ | BS EN 12467 : 2012, BS EN 13501-1 : 2007 BRE 302674-3 |
| A1 | Colour coated planks ⁽³⁾ | cavity depth from \geq 35 mm | BS EN 12467 : 2012, EN 13501-1 : 2018/ EFR-20-001658 review 1 |

(1) Horizontal planks on metallic or timber subframes (excludes EPDM strips)

(2) Copies available from the Certificate holder

(3) Thicknesses of 7.5, 9 and 12 mm, woodgrain textured and smooth.

7.2 The uncoated reverse side of the planks (facing into the cavity) has the reaction to fire classification given in Table 4 of this Certificate. Cavity barriers should be provided in accordance with the requirements of the documents supporting the national Building Regulations but should not block ventilation and drainage paths

7.3 The fixings for securing the planks to the subframe, have an A1 reaction to fire classification in accordance with the relevant national regulatory guidance.

7.4 The constructions in Table 4, incorporating a metallic subframe, are not subject to any restriction on building height or proximity to a boundary.

7.5 The constructions in Table 4, incorporating a timber subframe, are not subject to any restriction on building height or proximity to a boundary, other than those shown in sections 7.6 to 7.8 of this Certificate.



7.6 In England and Wales, the product should not be used with timber battens on buildings that have a storey more than 18 m above ground level and which contain one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools..



7.7 In Northern Ireland, the product should not be used with timber battens on buildings that have a storey more than 18 m above the ground.



7.8 In Scotland, the product should not be used with timber battens on buildings that have a storey more than 11 m above the ground; restrictions may also apply on entertainment, assembly, hospital and residential care buildings.

8 Weathertightness



8.1 The product is suitable for use in back-ventilated and drained cladding systems. It does not provide a watertight or airtight facing, but will contribute to resisting the passage of rainwater to the supporting structure.

8.2 The cavity gap behind the cladding should have a minimum width of 38 mm, with ventilation and drainage⁽¹⁾ (see section 4.4). The cavity drainage and ventilation gap should provide openings with a minimum ventilation area of 500 mm² per metre run along the base and head of any rainscreen wall.

(1) Guidance on recommended cavity widths is given in *NHBC Standards 2022*, Chapters 6.2, 6.9 and 6.10.18.

8.3 The product is not watertight and when used on timber stud or on metal frame substrate walls must be backed by a breather membrane (see section 1.4) acting as a vapour-permeable water barrier, incorporated behind the cladding

under the supporting battens. Where insulation is used in the cavity, the breather membrane should be provided over the outer face of the insulation.

8.4 Where the product is used as a decorative facing attached to weathertight masonry walls, a breather membrane is not necessary as the amount of water that will penetrate the cladding will be small and will not have an adverse effect on the wall.

8.5 If the product is used in the renovation of a masonry wall which is structurally sound but not fully weathertight, the use of a breather membrane is advisable.

8.6 Provision must always be made to allow water that has penetrated behind the cladding to drain away.

9 Maintenance



9.1 Annual maintenance inspections of the panel surface, ventilation gaps, joints and fixings are recommended to ensure they are clear and in a good state. The inspection should also detect the need for any repair of damage that will prolong the life of the cladding.

9.2 For normal soiling, the surface of the product can be cleaned with cold or lukewarm water mixed with a water-based detergent applied with a suitable cleaning pad or sponge. For more difficult soiling, the Certificate holder's advice should be sought.

10 Durability



10.1 The durability and service life of the product will depend upon the building location, immediate environment and intended use of the building.

10.2 Under normal service conditions, and provided regular maintenance is carried out as described in section 9 and in accordance with the Certificate holder's instructions, the product will have a service life in excess of 30 years.

Installation

11 General

11.1 The product must be installed in accordance with the Certificate holder's installation instructions, the requirements of this Certificate and the design engineer's specifications.

11.2 The product can be cut with hand tools and slow- or fast-running stationary power equipment. Circular saws or jigsaws must be equipped with a diamond-tipped blade. Cut edges should be bevelled with sandpaper. Where necessary, the product is drilled using a carbide-tipped twist drill bit.

11.3 The product is mounted horizontally allowing for lateral movement in accordance with the Certificate holder's instructions.

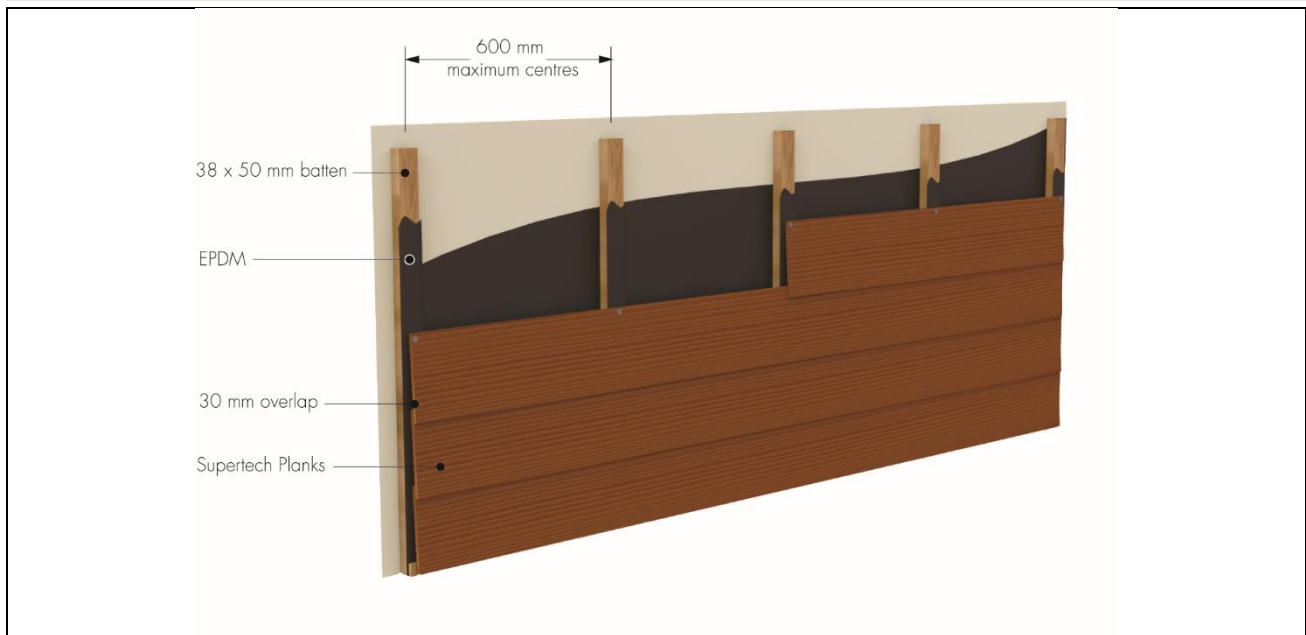
12 Precautions

Dust from fibre-cement products is characterised as mineral dust. Where excessive concentrations of dust are generated, the dust levels must be controlled by the use of dust extraction equipment. The measures defined in Health and Safety Executive Guidance Note EH44 should be followed.

13 Procedure

13.1 Typical installation details are shown in Figure 1.

Figure 1 Typical Installation detail⁽¹⁾



(1) For details of EPDM on timber battens, refer to Figure 2.

13.2 Where required, a wall breather membrane is laid parallel to the direction of the product along the wall, with minimum laps of 150 mm to ensure water can drain away from the building.

13.3 The timber battens or metal rail supports are vertically fixed over the breather membrane at maximum 600 mm centres.

13.4 For timber battens, an EPDM strip is attached to each batten starting from the top and stapling at intervals to ensure a flush fit.

13.5 A minimum ventilation gap of 38 mm must be provided between Supertech Plank and the substrate wall, and a perforated closure is installed at the base, top, and above and below window frame openings on the top and bottom of the sub-frame.

13.6 Prior to the product being installed, vertical corner, end and joint profiles are positioned, and nail- or screw-fixed to the sub-frame if required.

13.7 The starter profile is screw- or nail-fixed to the metal rail or timber batten respectively, at 150 mm above ground level on a level plane. The first plank is rested onto the starter profile and screw- or nail-fixed into the vertical rail or batten sub-frame. Each plank section must be supported by at least three vertical supports (at no more than 600 mm centres), with all ends supported.

13.8 Fixings are located at the top of the product and must be attached at each support and at a minimum distance of 20 mm from the edge. Adjacent products are loose butted against each other coinciding with a metal rail/timber batten support. Fixing heads should be flush with the product outer surface and spaced at a different vertical gauge to the sub-frame fixings to avoid a fixing clash.

13.9 Subsequent planks are installed upwards by overlapping the previous plank by 30 mm. Where fixings are exposed (ie top planks and reveals), the use of decorative wing tip screws to blend the fixing with the rest of the cladding is recommended.

13.10 Caution should be taken to avoid straddling of the planks and supports across movement joints in the substrate wall.

13.11 The completed wall must allow a 10 mm gap under window sills and at the soffit liner to ensure a complete ventilation pathway. To prevent gap closure, consideration should also be given to cross-grain shrinkage of new timber frame buildings.

13.12 As an alternative to vertical profiles, detailed finishing (such as corners) can also be achieved by overlapped or mitred plank edges. For triangular gable end abutments, a timber batten running parallel to the roof slope can be used with the plank ends affixed.

13.13 External fixtures, such as guttering and down pipes, must be fixed through to the substrate structure. Clearance holes through the planks must be provided when fixing items.

Figure 2 Typical Installation details (on timber battens)

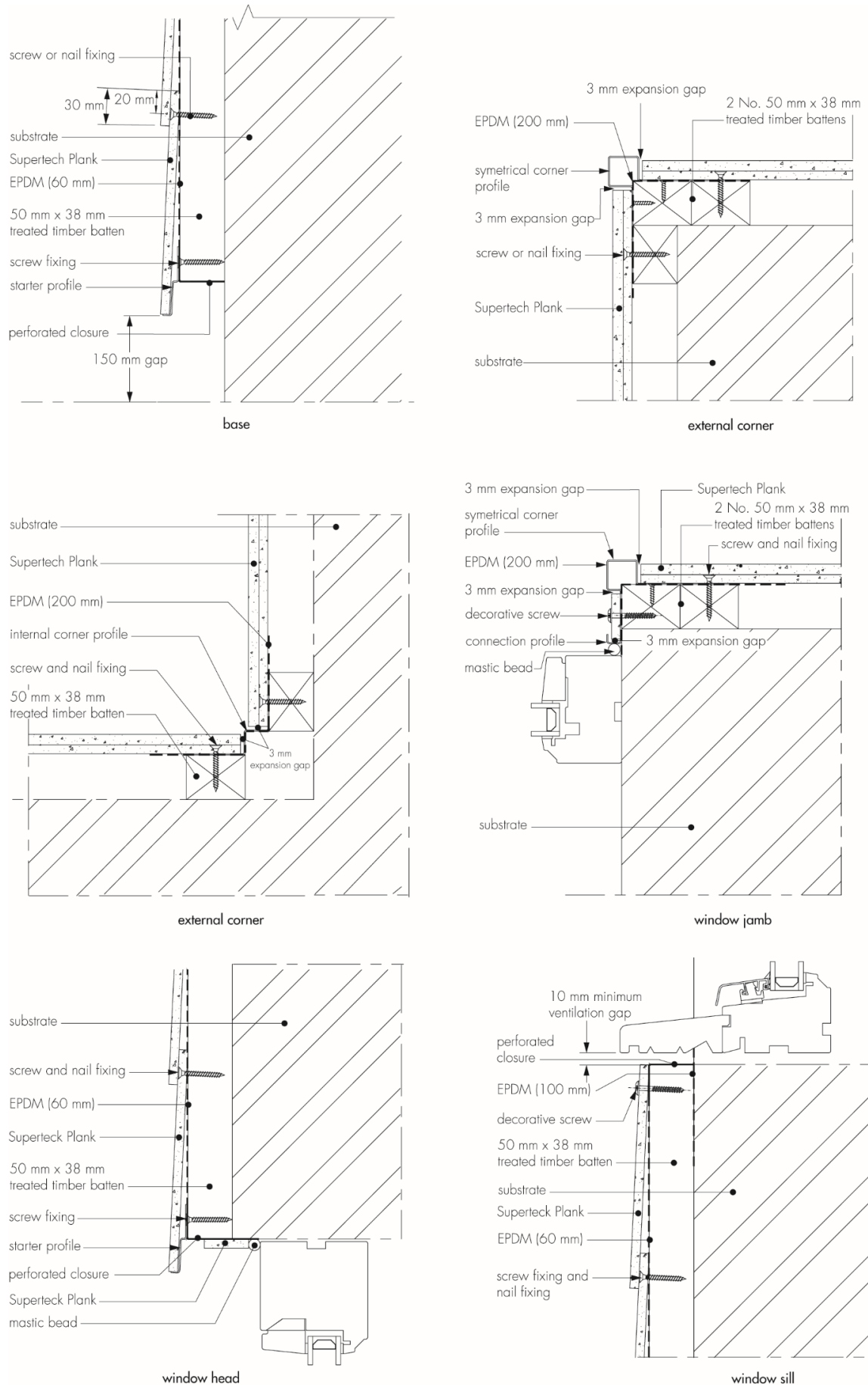
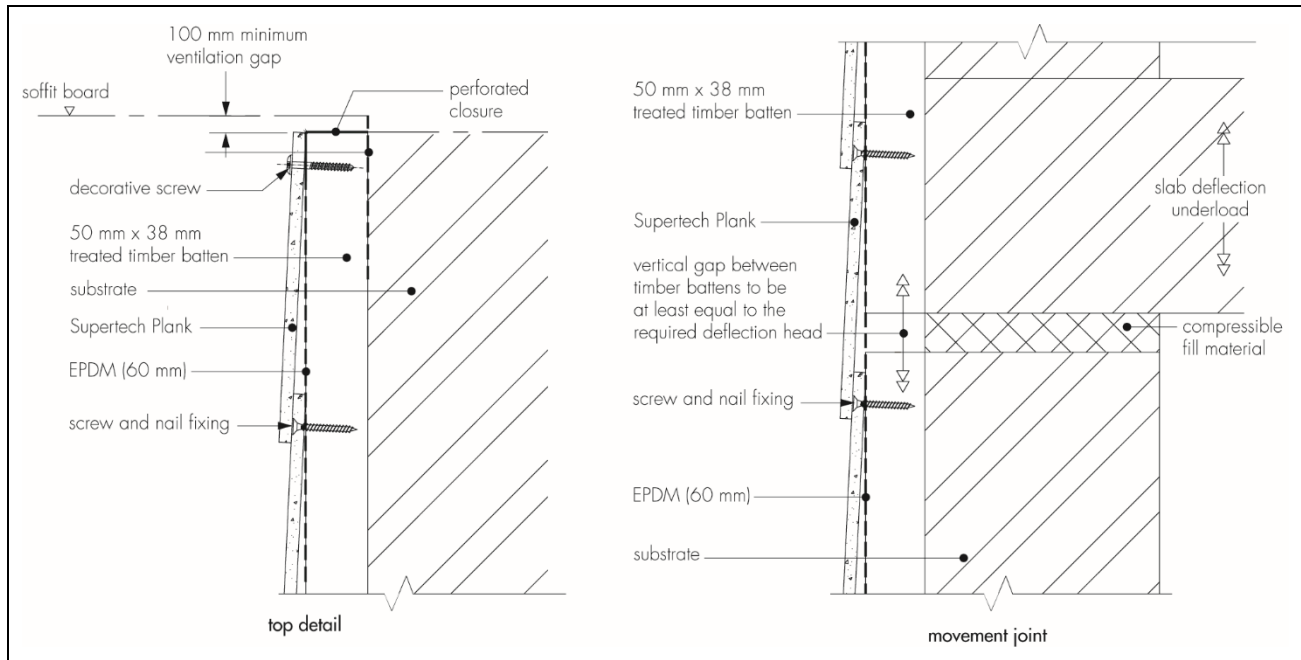


Figure 2 Typical Installation details (on timber battens) (continued)



Technical Investigations

14 Tests

Tests were carried out and the results assessed to determine:

- dimensional stability
- density
- resistance to impact
- water absorption
- flexural strength
- water impermeability
- resistance to freeze/thaw cycling
- resistance to heat/rain cycling
- resistance to water soak
- resistance to soak/dry cycling
- resistance to wind loading
- water vapour permeability
- UV ageing of coatings
- resistance to chemicals of coatings
- adhesion of coating to plank.

15 Investigations

15.1 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

15.2 An evaluation was made of existing data in relation to reaction to fire tests and classification to EN 13501-1 : 2018.

Bibliography

BS 1202-1 : 2002 *Specification for nails — Steel nails*

BS 8417 : 2011 *Preservation of wood – Code of practice*

BS EN 1990 : 2002 + A1 : 2005 *Eurocode — Basis of structural design*

BS EN 1991-1-4 : 2005 + A1 : 2010 *Eurocode 1 — Actions on structures — General actions*

NA to BS EN 1991-1-4 : 2005 + A1 : 2010 UK National Annex to *Eurocode 1 — Actions on structures — General actions*

BS EN 1993-1-1 : 2005 + A1 : 2014 *Eurocode 3 — Design of steel structures — General rules and rules for buildings*

NA to BS EN 1993-1-1 : 2005 + A1 : 2014 UK National Annex to *Eurocode 3 — Design of steel structures — General rules and rules for buildings*

BS EN 1995-1-1 : 2004 + A2 : 2014 *Eurocode 5 — Design of timber structures — General — Common rules and rules for buildings*

NA to BS EN 1995-1-1 : 2004 + A2 : 2014 UK National Annex to *Eurocode 5 — Design of timber structures — General — Common rules and rules for buildings*

BS EN 1996-1-1 : 2005 + A1 : 2012 *Eurocode 6 — Design of masonry structures – General rules for reinforced and unreinforced masonry structures*

NA to BS EN 1996-1-1 : 2005 + A1 : 2012 UK National Annex to *Eurocode 6 — Design of masonry structures – General rules for reinforced and unreinforced masonry structures*

BS EN 1996-1-2 : 2005 *Eurocode 6 — Design of masonry structures — General rules — Structural fire design*

NA to BS EN 1996-1-2 : 2005 UK National Annex to *Eurocode 6 — Design of masonry structures — General rules — Structural fire design*

BS EN 1996-2 : 2006 *Eurocode 6 — Design of masonry structures — Design considerations, selection of materials and execution of masonry*

NA to BS EN 1996-2 : 2006 UK National Annex to *Eurocode 6 — Design of masonry structures — Design considerations, selection of materials and execution of masonry*

BS EN 1996-3 : 2006 *Eurocode 6 — Design of masonry structures — Simplified calculation methods for unreinforced masonry structures*

NA + A1 : 2014 to BS EN 1996-3 : 2006 UK National Annex to *Eurocode 6 — Design of masonry structures — Simplified calculation methods for unreinforced masonry structures*

BS EN 12467 : 2012 + A1 : 2016 *Fibre-cement flat sheets — Product specification and test methods*

BS EN 13501-1 : 2007 + A1 : 2009 *Fire classification of construction products and building elements — classification using test data from reaction to fire tests*

BS EN 13859-2 : 2014 *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Underlays for walls*

EH40/2005 *Workplace exposure limits* (Second edition)

EN 13501-1 : 2018 *Fire classification of construction products and building elements — classification using test data from reaction to fire tests*

EOTA TR055 *Design of fastenings based on EAD 330232-00-0601, EAD 330499-00-0601 and EAD 330747-00-06-01. 2018.*

ETAG 034 : 2012 *Guideline for European Technical Approval of Kits for External Wall Claddings, Part 1 Ventilated cladding kits comprising cladding components and associated fixings*

PD 6697 : 2019 *Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2*

16 Conditions

16.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

16.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

16.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

16.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

16.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

16.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

SECTION 1 Identification of the article and of the company/undertaking

1.1 Product identifier

Trade name: Supertech

Identification of the product: Fibre reinforced cement

Type of product: Article

1.2 Relevant identified uses of the substance, mixture or article and uses advised against

Use: **Internal and external walling, Flooring and ceilings, Facia's and soffit liner,**
OEM applications for improved strength and density, Tile backer board,
External cladding

1.3 Details of the supplier of the safety data sheet

Supplier Unit 25-26 Rosevale Road
Parkhouse Industrial Estate West
Newcastle under Lyme
Staffordshire
ST5 7EF
United Kingdom

0800 612 4662

info@rcmltd.biz

1.4 Emergency telephone number

0800 612 4662

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45: This product is not classified as hazardous.

Hazard class and category code regulation EC 1272/2008 (CLP): This product is not classified as hazardous.

2.2 Label elements

Labelling regulation (EC) 67/548 or EC 1999/45: No Labelling Required.

Labelling regulation (EC) 1272/2008 (CLP): No Labelling Required.

2.3 Other hazards

The fibre cement products in their intact state do not present a hazard. However, one should be aware of the ill-effect and danger from prolonged exposure to the air-borne dust generated through cutting, drilling, routing, sawing and crushing of the fibre cement products.

Acute Effects

Skin contact: The dust from this product may cause irritation of the skin from friction but is not absorbed through the skin.

Eye contact: The dust from this product may irritate the eyes causing watering and redness.

Ingestion: Unlikely under normal conditions of use, but ingestion of the dust from this product may result in abdominal discomfort.

Inhaled: The dust from this product may cause irritation of nose, throat and lungs causing coughing and sneezing.

Chronic Effects

Inhaled: Prolonged and continuous exposure (over a number of years) to significant, airborne, respirable dust levels containing crystalline silica may cause bronchitis, silicosis and lung cancer. Based on limited animal research, it is possible that repeated inhalation of cellulose fibre dust over time may lead to inflammation and scarring of the lung in humans.

SECTION 3 Composition/information on ingredients

Components: This article is classified as not hazardous.
This product is a manufactured article, not a substance nor a preparation.

| Substance Name | CAS No | EC No | Contents by Weight % | Index Number (REGULATION (EC) No 1272/2008) | Classification (REGULATION (EC) No 1272/2008) | Classification (Other) |
|--|------------|-------|----------------------|---|---|------------------------|
| Ordinary Portland Cement | 65997-15-1 | - | 20-40% | - | - | R36 R37 R38 |
| Crystalline Silica (Quartz) | 14808-60-7 | | 20-50% | | | - |
| Cellulose | 9004-34-6 | | <10% | | | - |
| Other non-hazardous ingredients such as pigment, fillers and surface coatings. | - | | <10% | | | - |

SECTION 4 First aid measures

4.1 Description of first aid measures

Inhalation: Remove to fresh air.

Skin contact: Wash thoroughly with mild soap and water.

Eye contact: Flush with running water.

Ingestion: Not expected under normal condition of use. Drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Seek medical attention if symptoms persist.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: In case of fire, extinguish with carbon dioxide, water, foam or dry chemical as for surrounding materials.

5.2 Special hazards arising from the substance or mixture

No data available.

5.3 Advice for fire-fighters

Flammable class: The fibre cement products will not burn or help in burning, thus no specific fire fighting measures are required.

Protection against fire: No data available.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Not applicable.

6.2 Environmental precautions

Environmental precautions: Not applicable.

6.3 Methods and material for containment and cleaning up

Methods and material for containment: Not applicable.

Clean up methods: Not applicable.

6.4 Reference to other sections

Not applicable.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

Personal protection: There are no specific requirements for handling and storage.

Technical protective measures: There are no specific requirements for handling and storage.

7.2 Conditions for safe storage, including any incompatibilities

Storage: There are no specific requirements for handling and storage.

7.3 Specific end use(s)

No data available.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

Occupational/workplace exposure limits: Crystalline Silica (Quartz) 0.1mg/m³ time-weighted average (TWA) as respirable dust
Calcium Silicate (Synthetic) 10mg/m³ time-weighted average (TWA) as inspirable dust
Cellulose (Wood fibre) 10mg/m³ time-weighted average (TWA) as inspirable dust

Control parameters for airborne: Avoid generating dust or keep exposure to dust as low as practicable. Work areas should be cleaned regularly by wet sweeping or vacuuming.

Inhalable No data available. mg/m³

Respirable No data available. mg/m³

8.2 Occupational exposure controls

8.2.1 General protection controls

Industrial hygiene: Practices likely to generate dust should be carried out in adequately ventilated areas or in process enclosures with exhaust ventilation.

8.2.2 Individual protection controls

Respiratory protection: During dry cutting, drilling, routing, and sanding with power or abrasive tool, or if dust is generated, used an approved particulate dust mask.

Skin protection: Direct contact with dust and debris should be avoided by wearing long sleeved shirts or gloves.

Eye protection: Safety goggles/glasses should be worn.

Ingestion: No data available.

SECTION 9 Physical and chemical properties

Appearance: Solid boards or planks, or coated with various colours.
Flat or corrugated profile with standard sizes.

Colour: Greyish or pinkish

Odour: No data available.

pH value: No data available.

Melting point/freezing point: No data available.

**Initial boiling point and
boiling range:** No data available.

Flash point: Not applicable.

Evaporation rate: Not applicable.

Flammability: Non flammable.

Explosive limits Upper

Lower

Not applicable.

Not applicable.

Vapour pressure: Not applicable.

Vapour density: Not applicable.

Relative density: 1380 kg/m³

Solubility in water: Not soluble in water.

Auto-ignition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidising properties: No data available

9.2 Other information

No data available

SECTION 10 Stability and reactivity

10.1 Reactivity

Stability and reactivity: Fibre cement products are generally dimensionally stable and non-reactive, resistant to rot and water damage in their normal scope of applications.

10.2 Chemical stability

Chemical stability: No data available

10.3 Possibility of hazardous reactions

Hazardous reactions: No data available

Hazardous properties: No data available

10.4 Conditions to avoid

Conditions to avoid: No data available

10.5 Incompatible materials

Materials to avoid: No data available

10.6 Hazardous decomposition products

No data available

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity: Not applicable.

Skin corroslon/Irritation: Not applicable.

Serious eye damage/eye
Irritation: Not applicable.

Respiratory or skin
sensitisation: Not applicable.

Germ cell mutagenicity: Not applicable.

Carcinogenicity: Not applicable.

Reproductive toxlcity: Not applicable.

Specific target organ toxicity
- single exposure: Not applicable.

Specific target organ toxicity
- repeated exposure: Not applicable.

Aspiration hazard: Not applicable.

11.2 Additional information

On product: Not applicable.

SECTION 12 Ecological information

12.1 Toxicity

Not applicable.

12.2 Persistence and degradability

Not applicable.

12.3 Bioaccumulative potential

Not applicable.

12.4 Mobility in soil

Not applicable.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

Not applicable.

SECTION 13 Disposal considerations

13.1 Waste treatment methods Waste may be disposed by landfill; however disposal should comply with the local authority requirements.

13.2 General

Product: No data available.

Contaminated packaging: No data available.

SECTION 14 Transport information

14.1 UN number

ADR/RID: Not applicable.

IMDG: Not applicable.

IATA: Not applicable.

14.2 UN proper shipping name

ADR/RID: Not applicable.

IMDG: Not applicable.

IATA: Not applicable.

14.3 Transport hazard class(es)

ADR/RID: Not applicable.

IMDG: Not applicable.

IATA: Not applicable.

14.4 Packaging group

ADR/RID: Not applicable.

IMDG: Not applicable.

IATA: Not applicable.

14.5 Environmental hazards

ADR/RID: Not applicable.

IMDG Marine pollutant: Not applicable.

IATA: Not applicable.

14.6 Special precautions for user

Overland transport: Not applicable.

Air transport: Not applicable.

Inland waterway transport: Not applicable.

Rail transport: Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable.

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

| | | |
|--------|----------------------------|-----------------|
| 15.1.1 | EU-Regulations | Not applicable. |
| 15.1.2 | National regulations | Not applicable. |
| 15.2 | Chemical safety assessment | Not applicable. |

SECTION 16 Other information

Further Information

The fibre cement products contain crystalline silica which is classified as hazardous substance according to the criteria of Malaysia Occupational safety and Health Act 1994 Occupational Safety and Health (Use and Standards of Exposure of Chemical Hazardous to Health) Regulations 2000.

Breathing in fine silica dust when working with products is hazardous and may cause bronchitis, silicosis or cancer.

The fibre cement products do not contain Polybrominated biphenyls (PBBS), polybrominated diphenyl ethers (PBDEs) and short-chain chlorinated paraffins (C=10-13, SCCP).

MINIMISE DUST GENERATION AND DO NOT BREATHE DUST!

Operators must wear an approved particulate dust mask when power tools used.

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