

IBS FIBRE® Flex

September 2025

Design & Installation Guide



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Welcome to Independent Building Supplies (IBS), your trusted partner in the New Zealand building industry. Since our inception in 1993, IBS has been dedicated to sourcing and providing the highest quality building materials from around the globe. As a family business with four generations active in the building industry in New Zealand, we bring a wealth of experience and a deep commitment to excellence.

One of the key aspects that set IBS apart is our commitment to innovation. We are constantly on the lookout for new and improved building materials that can enhance the efficiency and effectiveness of construction projects. Our team of experts works closely with suppliers to bring cutting-edge products to the New Zealand market, ensuring that our customers have access to the latest advancements in building technology.

But our commitment to excellence doesn't stop at our products. At IBS, we pride ourselves on providing unparalleled customer service. Our knowledgeable and friendly team is always on hand to offer expert advice and support, helping you choose the right materials for your project.

ABOUT IBS

At IBS, we recognise that the foundation of any great building project lies in the quality of the materials used. That's why we meticulously select our suppliers, ensuring that every product meets our stringent standards for durability, performance, and sustainability. Our extensive range of offerings includes everything from plywood and panels to flooring and cladding, all tailored to meet the diverse needs of the New Zealand market.





*We seek to develop the most innovative, professional and profitable experience for our clients.
Our passion is for providing our customers with the best products, the best service, and the best experience*

In addition to our exceptional product range and customer service, IBS is also dedicated to sustainability. We recognise the importance of protecting our environment and are committed to sourcing eco-friendly building materials. Our sustainable product offerings help reduce the environmental impact of construction projects, allowing our customers to build responsibly without compromising on quality or performance.

IBS is more than just a supplier of building materials; we are a partner in your success. Our comprehensive range of services includes everything from product sourcing and logistics to technical support and training. We work closely with our customers to understand their unique needs and provide tailored solutions that help them achieve their objectives.

Join the countless builders, contractors, and homeowners who trust IBS for their building material needs. Discover the difference that quality, innovation, and exceptional service can make in your next project. Choose Independent Building Supplies – your partner in building excellence for over 30 years.

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- IBS RigidRAP®- XT
- IBS EUROFloor
- IBS EUROLine
- IBS FIBRE® Range
- IBS Structural Ply
- IBS Builders Grade® Ply
- IBS Formply

- IBS Decorative Ply
- IBS PanelLine®
- IBS Showerline
- IBS Softboard
- IBS Hardboard
- IBS Peg Board
- IBS Acoustic Panels
- IBS Mini Panels

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1. Introduction

This document is intended for designers and installers to ensure that IBS FIBRE® Flex is specified and installed correctly.

1.1 Introduction

The IBS FIBRE® Flex fibre cement boards are robust and offer exceptional resistance to a wide range of environmental conditions. They serve as an excellent alternative to traditional wood, concrete, and masonry construction materials. Our IBS FIBRE® Flex boards are produced in state-of-the-art manufacturing facilities throughout the Asia Pacific region. The company's manufacturing facilities comply with international quality standards ISO 9001:2008, ISO 14001:2004, and OHSAS 18001:2007.

1.2 Scope

The scope of this specification pertains to the use of IBS FIBRE® Flex, applicable to buildings that meet the limitations set forth in the New Zealand Building Code (NZBC) Acceptable Solution 'E2/AS1' paragraph 1.1. This manual addresses the use of IBS FIBRE® Flex for construction methods, including direct fixing or cavity installations, specifically for external and Internal walls of timber-framed and steel-framed buildings. For additional guidance on selecting construction methods for claddings, please refer to 'E2/AS1'. This document is intended for use by architects, builders, designers involved in the specification of IBS FIBRE® Flex.

1.3 What is IBS FIBRE® Flex

IBS FIBRE® Flex is our range of fibre cement boards, made from cement, silica, and cellulose. Autoclave treatment with steam, heat, and pressure gives them excellent strength and dimensional stability.

1.4 Sizes & Applications

TABLE 1 - IBS FIBRE® Flex Product Details			
L x W x Thickness (mm)	Length (mm)	Width (mm)	Applications
4.5	2400	300, 450, 600, 900 & 1200	Suspended ceilings External ceiling lining Soffit & eaves lining and fencing
4.5	2700	900, 1200	Suspended ceilings External ceiling lining Soffit & eaves lining and fencing
4.5	3000	900	Suspended ceilings External ceiling lining Soffit & eaves lining and fencing
6.0	2400	1200	Suspended ceilings External ceiling lining Soffit & eaves lining and fencing
9.0	2400	1200	Subfloor enclosure, wall lining, Substrate for ceramic tiles, slate and stone composite products

1.5 Benefits

- **Exceptional Flexibility:** IBS FIBRE® Flex is designed to be highly flexible, making it easy to work with.
- **Durability:** Made from high-quality materials, IBS FIBRE® Flex offers long-term protection and performance, ensuring that your building remains in excellent condition for years to come.
- **Moisture Resistance:** The product's moisture-resistant properties prevent water infiltration, protecting your building from potential damage and mould growth.
- **Easy Installation:** IBS FIBRE® Flex is lightweight and easy to handle, making the installation process quick and efficient, saving you time and labour costs.
- **Sustainability:** Made from eco-friendly materials, IBS FIBRE® Flex is an environmentally responsible choice. It contributes to reducing deforestation and promotes responsible resource management.
- **Versatility:** Suitable for a wide range of applications, IBS FIBRE® Flex can be used in residential, commercial, and industrial projects, providing a reliable and high-quality building solution.

1.6 Codemark

IBS is the certificate holder of CodeMark for IBS FIBRE® Flex. CodeMark is third party certified, allowed for under the Building Act 2004.

A CodeMark certification offers several key benefits:

- **Streamlined Approval Process:** Building Consent Authorities must accept CodeMark certified products as compliant with the NZ Building Code, simplifying the building consent process.
- **Quality Assurance:** CodeMark certification is a consistent and objective measure of quality, ensuring that products meet high standards.
- **Reduced Risk:** Using CodeMark-certified products reduces the risk of defects and installation issues, as these products are thoroughly assessed and verified.
- **Confidence:** It provides confidence to designers, builders, and consumers that the products will perform as expected and comply with regulatory requirements.

1.7 Supporting Info & Documents

This document must be read in conjunction with the:

- IBS Product Specification for IBS FIBRE® Flex
- IBS Maintenance and Warranty for IBS FIBRE® Flex

CAD details and all other information including any updates are available at www.ibs.co.nz

2. Best Practice

2.1 Health & Safety

IBS FIBRE® Flex complies with section 9.7.2 of 'E2/AS1'. The information in this document is consistent with the requirements outlined in NZBC Acceptable Solution 'E2/AS1'. Visit www.ibs.co.nz for more information.

For further information on Health & Safety, refer to:

- The Absolutely Essential Health and Safety Toolkit
- Worksafe New Zealand Quick Guide.

2.2 Handling & Storage

Loading and Unloading

IBS FIBRE® Flex cement boards are usually supplied on pallets suitable for forklift. If crane offloading by slings is envisaged, special notification must be made in advance or upon placing orders.

All pallets and crates can be safely handled by using a barge lift or hoisting equipment and straps. Steel cables should not be used as it will damage both the pallet and the panels within.

Transport to Site

Always drive the delivery vehicle as close as possible to the location where the panels are to be installed. When transporting the panels, it is essential to firmly secure the pallets to prevent the panels from sliding or moving while in transit.

Storage

IBS FIBRE® Flex fibre cement boards are supplied with protective plastic sheeting wrapped around the timber crates. This protection should not be removed until site and structural conditions are prepared and ready for panel installation.

All IBS FIBRE® Flex fibre cement boards must be stored flat on pallets and placed inside in covered and dry conditions, optimising protection for stored panels against exposure to weather and other unfavourable conditions.

Before installation please check panels for defects.

Site considerations:

- Selection of the right equipment for working from a height
- Safe working with ladders and stepladders
- Maintain a clear unobstructed work area

2.3 Cutting

The method of cutting depends on the volume of cutting required. Panels can be cut using stationary table saws, circular saws, or jigsaws. Cutting should be performed in a dry environment, and dust control measures must be in place.

It is recommended that fibre cement saw blades (see figure 3,4) are used to cut the panels on site. These blades have been designed especially for fibre cement and when correctly employed, a high level of finish can be achieved. The blade is uniquely designed with vibration damping composite body construction and diamond tipped teeth shaped to give a tear-free edge.

When small amounts of cutting are required on site, an alternative to the recommended fibre cement saw blade is a carbide-tipped flat trapezoidal tooth blade. This has limited life and will need regular changing.



Figure 3
Fibre cement blade.



Figure 4
Fibre cement blade.

2.4 Drilling

Drilling IBS FIBRE® Flex cement boards should be drilled using preferred and more efficient tungsten carbide-tipped drills with point angles of 60° to 80° rather than the usual 120° type.

2.5 Service Penetration

Very often apertures need to be cut within a board in order to allow for penetration of services such as switchboxes, lights, access panels etc. Therefore, the following procedures would serve as general guidelines to achieve this requirement.

For smooth, clean cut circular holes:

- Mark the centre of the hole on the board.
- Pre-drill a hole to be used as a guide.
- Cut hole to the required diameter using a hole saw fitted to an electric drill where the central bit is inserted into the pre-drilled hole.

For small irregular holes:

- Small rectangular apertures can be achieved by forming a series of small holes around the perimeter of the opening.
- Tap out with a chisel and clean up with sand paper or a rasp.

3. Durability

3.1 Compliance

Similar to other products containing quartz (such as concrete and clay), IBS FIBRE® Flex can release dust containing quartz particles when mechanically processed (e.g., cutting, sanding, drilling). Inhalation of high concentrations of this dust may irritate the respiratory system and could also cause irritation to the eyes and skin. Prolonged or high-level exposure to respirable quartz dust can lead to lung disease (silicosis) and increase the risk of lung cancer.

To minimize risk:

Use cutting tools equipped with dust extraction or suppression features whenever possible. Ensure proper ventilation in the work area. Protect against dust exposure by wearing suitable personal protective equipment, including safety goggles, protective clothing, and an approved respirator, such as a dust mask of at least type P2.

For additional safety information, please refer to the relevant Product Data Sheet, available upon request.

3.2 Responsibility

Designers and/or contractors responsible for the intended project should follow the details and recommendations specified in this manual.

It is also wise to keep in mind that all designs and constructions should comply with appropriate and relevant requirements of current legal building codes, regulations and standards, both domestic and international.

*The information provided in this installation guideline is valid at the time of publication. IBS reserves the right to change the information contained in this document without prior notice. It is your responsibility to ensure that you have the most up-to-date information available, including at the time of applying for a building consent.

3.3 Conditions

- When installed in an exterior application all edges must be sealed prior to installation.
- It is recommended that using best practice you should seal the back face of the sheet with one coat of paint prior to installation.
- It is required that a minimum of 150mm in from the edge around all sides including any cut outs are sealed on the back of the sheet.
- Always install IBS FIBRE® Flex ensuring that any external framing meets the requirements of B2/AS1.

- If installing IBS FIBRE® Flex on timber frames ensure there is a maximum moisture content of 18% Refer to NZS3602 for details around the allowable moisture content for your specific installation.
- Walls shall include those provisions as required by the NZBC Acceptable Solution 'E2/AS1' 'External Moisture'. In addition all wall openings, penetrations, junctions, connections, window sills, heads and jambs must incorporate appropriate flashings for waterproofing. The other materials, components and installation methods used to manage moisture in external walls, must comply with the requirements of relevant standards and the NZBC.
- For further information on designing for weathertightness refer to BRANZ Ltd and the Ministry of Business Innovation and Employment (MBIE) updates on the following websites respectively, www.branz.co.nz and www.building.govt.nz.
- For timber frame walls longer than 12m, it is best practice to allow for construction joints to accommodate movements generated due to timber shrinkage or deflections.

3.4 Prohibited Uses

Specifiers, designers and installers must ensure that any time that IBS FIBRE® Flex is installed that it is only used when all conditions are met in relation to the local requirements as well as E2/AS1 and the current Building Code.

3.5 Defects

Before Installation, please ensure you check the panels for defects or damage.

3.6 Differing Installation

To ensure the warranty on the product remains valid, it is crucial to follow the design and installation guidelines provided. Failure to adhere to these instructions may result in the warranty being voided.

4. Design

4.1 Check the Substrate

- The framing must also fully support all sheet edges. It must be rigid and not rely on the cladding sheet for stability. All timber framing sizes must be as specified in this installation guide.
- They must also comply with the NZBC or be suitable for the intended building work.
- Timber framing must be in accordance with framing manufacturer's specification.
- Lightweight steel framing must be in accordance with Nash Design and NZS 3404 Steel Structures Standard.
- We recommend using IBS RigidRAP®-XT as a rigid air barrier in conjunction with steel framing.

Install building wrap or Rigid Air Barrier

Building underlay or a rigid air barrier must be provided to meet the requirements of the NZBC. It must be fixed in accordance with the underlay manufacturer's requirements and comply with the NZBC.

Install the cavity battens

For a cavity construction method, use the following framing:

- Studs spacing: 600mm centres maximum
- Nog or Dwang spacing: 800mm centres maximum
- Stud and face Nog or Dwang edge width: Timber: 40mm minimum

Where required, the edge width can be increased by using trim-packing to the side of the studs and noggings. An extra stud is required in internal corners.

The timber battens you use must be minimum of H3.1 and treated in accordance with NZS3640 (Chemical preservation of round and sawn timber).

The cavity battens must also be:

- A minimum 18mm thick x 40mm wide
- At least as wide as the width of studs.

When studs are at 600mm centres the battens must be provided at 300mm centres.

The battens must be fixed to the structural framing through the building underlay using panel fixings. Until the panels are fixed, the battens only need to be tacked into place on the framing. An intermediate batten between studs is not required if the studs are spaced at a maximum of 400mm centres or if you are using a rigid air barrier instead of building underlay.

Install the flashings

Before you install the IBS FIBRE® Flex fibre cement boards, any wall openings, penetrations, intersections, connections, window sills, heads and jambs must be flashed in accordance with E2/AS1.

Penetrations through the building wrap or rigid air barrier must be sealed or flashed at the junctions. Lap all flashings so that water tracks down to the exterior on the face of underlay. The flashing you install must comply with the durability requirements of the NZBC.

Boards layout

IBS FIBRE® Flex 6mm and 9mm cavity system boards are normally installed vertically. This minimises the number of horizontal sheet joints and all of the panel edges must be supported by the framing. If installing horizontally the battens are required to be either castellated or Cavibat™ to ensure adequate ventilation and drainage.

4.2 Framing

In order to achieve an acceptable wall finish, it is imperative that framing is straight and true. Framing tolerances must comply with the requirements of NZS 3604. All framing shall be made flush.

4.3 Preparation

The serviceability of the joints may be impacted if the timber framing is not properly prepared. To meet the durability requirements of the NZBC and ensure product warranties, IBS FIBRE® Flex must be painted. Ensure that IBS FIBRE® Flex is dry and free of dirt before painting. The coating must be applied within 3 months of sheet installation.

When using uPVC flashings, the light reflective value of the colour used must be more than 40% as required under 'E2/AS1'. Dark colours cause excessive movement and deteriorate the cladding performance.

4.4 Moisture

It is the responsibility of the specifier to identify moisture related risks associated with any particular building design. Wall construction design must effectively manage moisture, considering both the interior and exterior environments of the building, particularly in buildings that have a higher risk of wind driven rain penetration or that are artificially heated or cooled.

5. Installation

Below is the recommended process for IBS FIBRE® Flex, please make sure you follow the below steps in order.

Internal Installation

5.1 Suspended Ceiling (4.5mm & 6.0mm board)

Installation Guidelines:

Where IBS FIBRE® Flex is specified as part of a suspended ceiling, it must be incorporated into a proprietary suspended metal framing system.

Typically, the system is prefabricated using pre-finished aluminium or light gauge galvanised steel.

The framing system is made up of “T”, cross ”T” and a wall perimeter angle. Once suspended from the structural floor above using hangers, the floor will support the IBS FIBRE® Flex fibre cement boards.

The IBS FIBRE® Flex suspended ceiling system is suitable for use in commercial and office buildings as it provides a ceiling void for building services. IBS FIBRE® Flex must be installed in accordance with the supplier’s instructions.

Once the suspended ceiling system is erected, cut the IBS FIBRE® Flex fibre cement boards to the size of the support grid (with 3mm clearance), pre-paint them and then lift into place. No mechanical fixing is required.

5.2 Wall Lining

Installation Guidelines:

- Sheets must be installed on timber framing compliant with NZS 3604.
- Stud spacing should not exceed 600mm.
- Sheets must be dry before installation and fixed using 40 x 2.8mm galvanised or stainless steel nails.
- Nails should be driven flush with the sheet surface.
- Sheets can be direct fixed or installed over a cavity system depending on moisture risk assessment.
- Horizontal and vertical joints must be treated with appropriate jointing methods (e.g., PVC jointers, sealants, or battens).
- Minimum clearances from ground and other surfaces must be maintained as per NZBC E2/AS1

5.3 Firewall

Because IBS FIBRE® Flex cement boards are a non-combustible material, they can be used in conjunction with a fire rated wall system that meets the performance requirements of the NZBC C2-C6 Protection from Fire. A fire wall is a full system, designed with specific components to meet the purpose of the intended use of the building and the area within or external to the building requiring protection.

Horizontal Joint

Horizontal joints are likely to occur when a building's wall height is more than one sheet in length.

External Installation

5.4 Soffit & Eave Lining (4.5mm & 6.0mm board)

Installation Guidelines:

Eave linings are normally installed before a wall cladding system.

Where 4.5mm & 6.0mm panels are specified as a soffit or eave lining the selection of the correct thickness will be dependent on the framing support. The maximum recommended horizontal support for 4.5mm is 480mm and 600mm for 6.0mm IBS FIBRE® Flex fibre cement board.

Typically, the fascia will have a preformed groove to accommodate the eave material and the junction of the eave can be supported by the cladding system or the use of a timber finishing line PVC or timber battens can be used where sheet joints are required. Fixings required are: 40 x 2.8mm galvanised / stainless steel fibre cement nails or Surefix countersunk screws.

Nails must be hammered flush with the IBS FIBRE® Flex fibre cement boards surface. When screwed, countersink 0.5mm below the surface. Screws are not recommended where 4.5mm IBS FIBRE® Flex fibre cement boards are used.

After the installation of the IBS FIBRE® Flex fibre cement board, holes should be filled, primed and painted.

5.5 External Ceiling Lining (4.5mm & 6.0mm board)

Installation Guidelines:

Where 4.5mm & 6.0mm IBS FIBRE® Flex fibre cement boards are specified as a ceiling lining it must be supported by timber or light weight steel framing at maximum of 480mm centres for 4.5mm and 600mm centres for 6.0mm.

IBS FIBRE® Flex can be installed with PVC jointers mid span between ceiling joists provided the sheet spans do not exceed 600mm. Fixings required are: 40 x 2.8mm galvanised /stainless steel fibre cement nails or Surefix countersunk screws.

Nails must be hammered flush with the IBS FIBRE® Flex fibre cement board surface. Screws must be countersunk 0.5mm below the surface. Screws are not recommended if you are using 4.5mm IBS FIBRE® Flex fibre cement board.

After the installation any holes should be filled, primed and painted.

5.6 Fixing

IBS FIBRE® Flex Sheets must be kept dry and under cover whilst in storage or during installation.

Framing moisture content must not exceed the maximum limit specified in NZS3602 prior to sheet installation. Every endeavour must be made to keep framing dry once sheet fixing commences.

All sheet edges must be sealed prior to installation. The sheet edges must also be sealed around window/door openings and other penetrations e.g. meter boxes etc.

IBS FIBRE® Flex Sheet must be primed 150mm across back face from edges.

Table 2 - IBS FIBRE® Flex Sheet Fixings			
Type	Thickness(mm)	Horizontal Support	Fixing Size
Soffit & Eave Lining	4.5	Max 480mm	40 x 2.8mm Galv or bigger
			40 x 2.8mm Stainless Steel
Suspended Ceiling	6.0	Max 600mm	40 x 2.8mm Galv or bigger
			40 x 2.8mm Stainless Steel
Sub-floor Enclosure	6.0	Max 600mm	40mm x 7G Stainless Steel Wood Screws
			40mm x 7G Stainless Steel Wood Screws
	9.0	Max 600mm	40mm x 7G Stainless Steel Wood Screws

Note:

You must always use stainless steel fixings when installing products in a sea spray zone.

Table 3 - IBS FIBRE® Flex Screw Fixing Requirements			
Framing Type	Fasteners	Installation	Notes
Steel Framing	8 gauge x 22mm self-embedding head screws (SEH), Class 3 finish	Embed 0.5mm below sheet surface	Increase nail length if fixing over existing or additional wall linings (equal to thickness of rigid air barrier)
Timber Framing	Drive nail head flush with panel surface	Drive nail head flush with panel surface	

5.7 Jointing

IBS FIBRE® Flex Sheets may have the following types of vertical joints.

Vertical Joint

IBS FIBRE® Flex Sheets can be jointed in a number of ways to achieve different panelised look

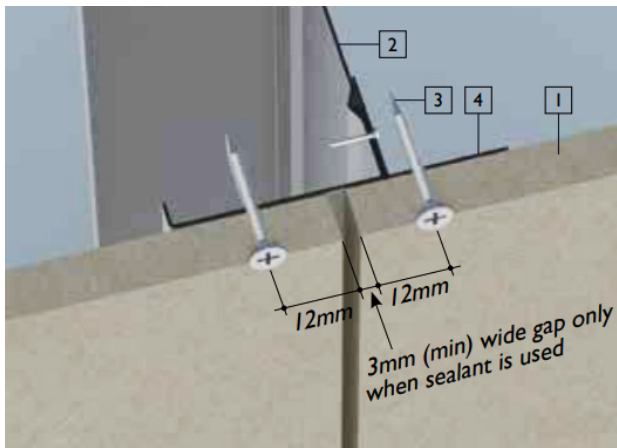


Figure 7

Typical joint detail with sealant

1. IBS FIBRE® Flex fibre cement boards
2. Steel framing
3. Self drilling self embedding head screw
4. Supporting angle secure to steel frame with wafer head drilling screw

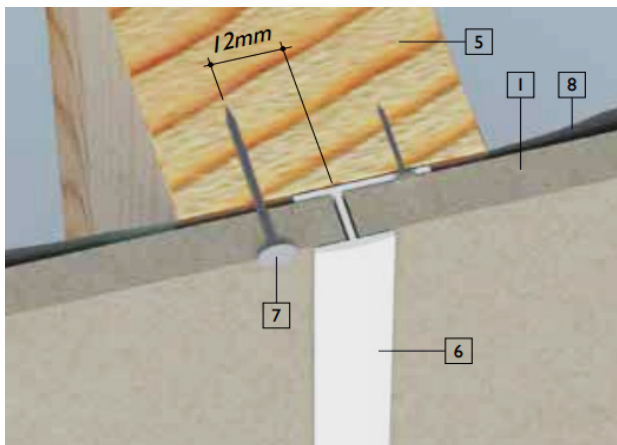


Figure 8

Typical joint detail with PVC joint

5. Timber framing
6. PVC jointer nail fixed at 200mm centres
7. Galvanised fibre cement nail
8. Vapour permeable sarking

Note:

- Self embedding head screws should be used with 6mm thick panels and above.
- The 3mm minimum gap is for a sealed joint if required.
- IBS FIBRE® Flex fibre cement boards are fixed with standard fibre cement screws and nails.
- All fixings shall be selected in accordance with environmental conditions and durability requirements as specified Sec.4, NZS3604:2011.

You must use exterior grade PVC or galvanised flashing for all IBS FIBRE® Flex cement boards horizontal joints. When the building height is more than one storey high, provide a horizontal control joint along the junction of the floor joist on the upper storey.

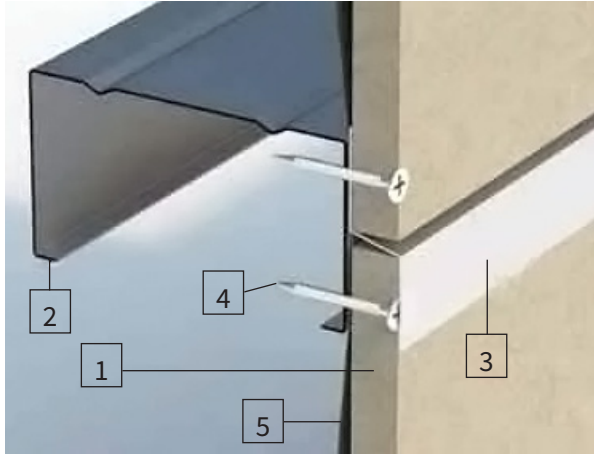


Figure 9

Horizontal joints

1. IBS FIBRE® Flex, cement boards
2. Galvanised steel frame
3. PVC or metal flashing
4. Self embedding head, self drilling screws
5. Vapour permeable sarking

Internal and External Wall Corners

IBS FIBRE® Flex cement boards corner joints can be battened with treated timber or finished with proprietary metal or PVC corner moulds or back flashings.

See the drawings below for details:

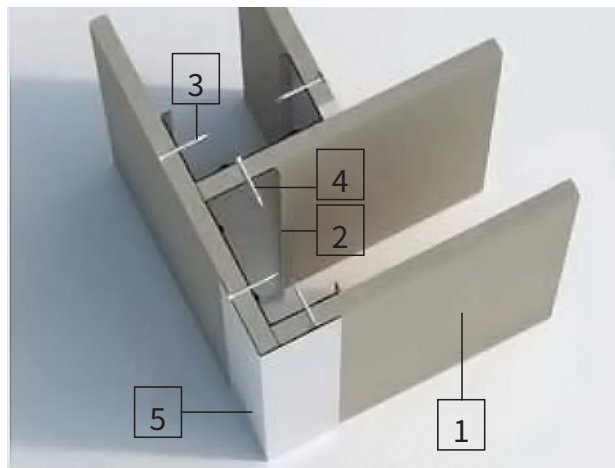


Figure 10

External corners

1. IBS FIBRE® Flex fibre cement boards
2. Galvanised steel framing
3. Self embedding head, self drilling screws
4. Self embedding head Self drilling screw
5. External Corner

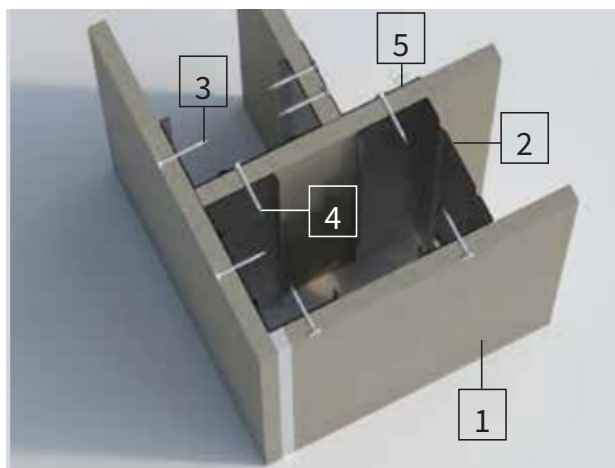


Figure 11

Internal corners

1. IBS FIBRE® Flex fibre cement board
2. Galvanised steel framing
3. Self embedding head Self drilling screw
4. Galvanised steel framing
5. Internal corner

5.8 4.5mm & 6.0mm board layout

4.5mm & 6.0mm IBS FIBRE® Flex cement boards can be laid parallel to – or across – the ceiling joist which ever provides the best optimisation of the panel.

Supporting Framing Distance for Ceiling

Table 3 - Support Framing Centre Distance (mm)		
Ceiling eaves/soffit lining		
Board thickness	Joist	Trimmer
4.5mm	480	600
6.0mm	600	1200

You must use the following framing:

Horizontal timber framing support will depend on roof framing centres or ceiling joists. However, we recommend maximum spacings of 600mm centres.

If you are using 4.5mm IBS FIBRE® Flex cement boards with spans greater than 600mm, the framing should be reduced to a maximum of 480mm centres.

4.5mm & 6.0mm IBS FIBRE® Flex cement boards are suitable for horizontal and racked soffits.

Horizontal framing fixing width:

- Timber: 40mm minimum
- Steel: 38mm minimum

Where required, the edge width can be increased by using trimpacking to the side of the horizontal support.

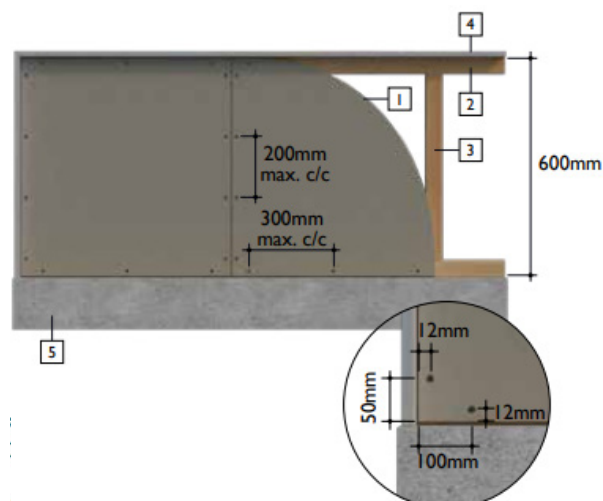


Figure 12

1. Ceiling board installation
2. Timber rafter at 600mm max. c/c
3. Timber battens at 600mm max. c/c
4. IBS FIBRE® Flex cement boards
5. Fascia board

6. Finishing

6.1 Preparation

- Before you install the panels, check the framing structure is square and true.
- The framing must also fully support all sheet edges. It must be rigid and not rely on the cladding sheet for stability.
- All timber framing sizes must be as specified in this installation guide. They must also comply with the NZBC or be suitable for the intended building work.
- Timber framing must be in accordance with framing manufacturer's specification.
- Lightweight steel framing must be in accordance with Nash Design and NZS 3404 Steel Structures Standard.
- Install a thermal break on all external steel wall framing where IBS FIBRE® Flex fibre cement boards are used on the external envelope.
- All edges and a minimum of 150mm around all sides on the back of the board must be sealed prior to installation.

6.2 Sealants

All sealants must meet the relevant requirements of the NZBC. Their application and usage must be in accordance with manufacturer's instructions. Check with sealant manufacturer prior to coating over sealants. Some sealant manufacturers do not recommend coating over their product.

6.3 Coating

Use only quality exterior paints complying with AS 3730. Manufacturer's specification for the selected paint must be followed. Note that some paints require undercoat before applying the finish coat. Prior to coating, the surface should be examined to ensure it is clean, dry and free of any dust or contaminants. When using uPVC flashings, the light reflective value (LRV) for the colour must not be less than 40%.

All exposed faces, including the top edges under the sills and bottom edges of IBS FIBRE® Flex Sheet must be finished with an exterior paint system. Paints with a low LRV will absorb more solar heat and could cause the components used in the wall to expand or contract.

This combined with glossy paints and wet timber used at construction stage, could lead to increased chances of fastener read through as is common with any other building material.

For best aesthetic results a low sheen paint is recommended. Enamel — based paints can be used, utilising a three-coat system. Refer to the paint manufacturer for details before commencing the coating work. Paint must not be applied when the temperature is below 10° C.

7. Care & Maintenance

7.1 Care & Maintenance

Under normal conditions, IBS FIBRE® Flex cement boards will not need maintenance, as long the protective paint system is maintained.

If water damage does occur to an area where IBS FIBRE® Flex cement boards has been used, first remove the protective paint layer. Then make sure the area is allowed to dry before replacing the protection.

Maintain the paint finish in accordance with the manufacturer's requirements.

This will depend on the finish chosen, but will typically include:

- Regularly washing or wiping clean protective surfaces. (Minimum 1x per year)
- Ensuring the paint or plaster system is maintained.



8. Warranty

8.1 Warranty

Independent Building Supplies Limited (IBS) supplies sustainable building products, which when used and installed in accordance with all relevant instructions and specifications, will be fit for purpose.

As part of our commitment to performance, IBS provides a warranty in respect of IBS FIBRE® Flex (Product) in accordance with the following terms and conditions.

These terms and conditions must be read in conjunction with all product specific relevant and applicable technical documentation, information and guidelines published or referenced by IBS from time to time (Specifications) in relation to the Product.

1. IBS warrants that:

- 1.1 At the time of delivery to the merchant or site (where applicable) the IBS supplied Product will:
 - (a) be free from freight related defects;
 - (b) be free from defects that may have arisen through defective factory workmanship or materials; and
 - (c) conform to the performance characteristics listed on the applicable pass™ (warranted condition).
- 1.2 Once installed properly and in accordance with all appropriate Specifications the Product will continue to meet the relevant provisions of the building code as described on the applicable pass™ (warranted performance).

2. Date warranty valid:

- 2.1 IBS warrants:
 - (a) the warranted performance for 15 years from proven date of purchase or dispatch from IBS whichever date is the earlier; and
 - (b) the warranted performance for the durability period as specified by the NZ Building Code.

The durability period begins from the date the product is first installed or two months after the date of delivery, whichever is the earlier.

- 2.2 All enquiries relating to this warranty must (in the first instance) be directed to the place of purchase, the supplier or the installer.
- 2.3 By submitting a claim under the warranty, you grant IBS and its agents, consultants and contractors full rights of access, at no cost and at any reasonable time, to the relevant building to inspect the Product and the installation method for the purpose of determining the validity of the claim.

3. In the event a breach of the warranty is proven, the following applies:

- 3.1 For any valid and accepted breach of a warranty, IBS will, in its sole discretion, either:
 - (a) repair, replace or rectify the defective Product; or
 - (b) refund the purchase price of the defective Product. Where applicable the value will be reduced pro-rata, based on the remaining life of the Product (as set by the relevant durability requirements of the NZ Building Code).
- 3.2 Any action taken by IBS in satisfaction of a warranty claim shall constitute full and final settlement of all claims and IBS's total liability related to a breach of the warranty is limited to the direct cost to IBS of performing either of the above options.
- 3.3 IBS reserves the right to supply other comparable materials or products should the warranted Product no longer be supplied by IBS.

4. This warranty is subject to the following:

- 4.1 Receipt of evidence of the date of purchase of the Product.
- 4.2 Evidence satisfactory to IBS of failure of the Product.
- 4.3 Receipt of a written claim from the claimant either within 30 days of when the defect or failure of the Product would have become reasonably apparent or, if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation.
- 4.4 The claim must include full details of the alleged defect in the Product.

- 4.5 Evidence satisfactory to IBS that all design, storage, transport, installation and maintenance requirements for the Product have been met or carried out in accordance with the Specifications and in terms of best building practice and the building code.
- 4.6 The warranty does not cover failure or problems caused by defective use, failure relating to improper design of the project structure, structural failure, settlement, movement of materials to which the Product is attached or dependent on, acts of God including but not limited to earthquakes, cyclones, floods or other severe weather conditions, inadequate maintenance, growth of mould, mildew, fungi, bacteria or any organism on any Product, or acts or omissions of a third party over whom IBS has no control.
- 4.7 The warranty does not cover failure or loss arising from the failure to follow all relevant IBS advice and requirements or failure to adhere to the Specifications.
- 4.8 Normal wear and tear, including non- performance related changes, are excluded from this warranty.
- 4.9 All relevant information relating to the Specifications is uncontrolled in printed format and is available from IBS (refer to www.ibs.co.nz).

5. Limitations

- 5.1 IBS will not be liable for a warranty claim unless:

the use of the Product meets the installation, storage, transport, use and maintenance requirements and Specifications in respect of the Product and the customer is responsible to ensure these are received and understood; and (b) the claim procedure set out in these terms is correctly followed and the required information is provided.

- 5.2 IBS will in no circumstances be liable for:
- (a) any damage or loss caused by a person other than IBS, or by any other factor outside IBS's reasonable control, including without limitation fire, moisture, lightning, liquid, strike or lockout, chemicals, insects or animal;
 - (b) any damage or loss caused or contributed to by incorrect or improper use or a failure to comply with all Specifications and all applicable building codes, regulations and legislation;
 - (c) neglect, abuse, misuse, growth of mould/ mildew/fungi/bacteria or other organism; or
 - (d) any direct or indirect loss, or consequential loss or damage, of any kind.
- 5.3 All warranties, conditions, liabilities and obligations implied by law or custom (other than the warranties in these terms) are excluded to the fullest extent permitted by law, and without limitation, where the Product is provided for the purposes of trade, the provisions of the Consumer Guarantees Act 1993 shall not apply.
- 5.4 Except as provided in these terms, IBS will not be liable (under legislation, contract, tort, or otherwise including in equity) in respect of any defects in the Product or for any other cost, expense or liability caused by or related to the use of the Product.

9. Technical Properties

9.1 Technical Properties

IBS FIBRE® Flex is fibre cement board made of cement, quartz sand, and cellulose fibre, with process of slurring, forming, autoclaving etc.

There is choice of underlay and lining of exterior wall siding, interior wall lining, ceiling and partition systems. Various thicknesses are available to meet the demands of different projects and the preference of different designers and builders.

Table 4 - IBS FIBRE® Flex Technical Properties		
Parameter	Value	Standard
Apparent Density	>1300kg/m ³	AS/NZS 2908.2
Tolerance on Length, Width and Thickness	Length: $\leq \pm 2\text{mm}$ Width: $\leq \pm 2\text{mm}$ Thickness : $\leq 10\%$	AS/NZS 2908.2
Straightness of Edges	$\leq 1\text{mm/m}$	AS/NZS 2908.2
Squareness of Edges	$\leq 1\text{mm/m}$	AS/NZS 2908.2
Bending strength (Type A, category 3)	$\geq 10\text{MPa}$	AS/NZS 2908.2
Moisture content	8-13%	ASTM C1185
Water adsorption	$32 \pm 2\%$	ASTM C1185
Moisture movement	< 0.25%	AS/NZS 2908.2
Water permeability	No formation of drops of water on the underside of the specimen after 24h	AS/NZS 2908.2
Warm water	Passed(Li=0.95)	AS/NZS 2908.2
Freeze-thaw	Passed(50 cycles)	AS/NZS 2908.2
Heat rain	Passed(50 cycles)	EN12467:2012
Soak-dry	Passed(50 cycles)	EN12467:2012
Reaction to fire	Class A1	EN12467:2012
Combustion performance	Non-Combustible	AS 1530 Part 3:1999
Fire Hazard Properties Ignitability Index Spread of Flame Index Heat Evolved Index Smoke Development Index	 0 0 0 0-1	 AS 1530 Part 3:1999

10. Additional Resources

10.1 Compliance and Information

For compliance & information of IBS FIBRE® Flex refer to:

- IBS Product Specification
- IBS CAD drawings
- IBS Maintenance and Warranty of IBS FIBRE® Flex
- www.ibs.co.nz
- 0800 367 759

10.2 Designing outside of scope

If you're designing or installing a product that deviates from these specifications or the guidelines in this design and install guide, please note that this will void any warranty claims unless specifically approved by IBS prior to any works starting.



11. Frequently Asked Questions

Q. What are the recommended safety precautions when installing IBS FIBRE® Flex sheets?

- A. Ensure to work in a well-ventilated area, use dust masks and eye protection when cutting or sanding the sheets. Follow all safety guidelines provided in the technical literature.

Q. How should IBS FIBRE® Flex sheets be stored prior to installation?

- A. Store the sheets flat and off the ground in a dry, covered area to prevent warping and damage.

Q. What tools and materials are required for the installation of IBS FIBRE® Flex sheets?

- A. You will need standard carpentry tools, including a high-speed cutting tool, drill, screws or nails, tape measure, level, and appropriate personal protective equipment.

Q. Can IBS FIBRE® Flex sheets be painted, and if so, what type of paint should be used?

- A. IBS FIBRE® Flex sheets must be painted. Use a high-quality, exterior-grade acrylic paint suitable for cement-based materials.

Q. What are the guidelines for cutting and drilling IBS FIBRE® Flex sheets to ensure durability?

- A. Use a carbide-tipped blade for cutting and pre-drill holes for fasteners to prevent cracking. Follow the manufacturer's guidelines for specific cutting and drilling instructions.

Q. How do you ensure proper alignment and spacing when installing IBS FIBRE® Flex sheets?

- A. Use a chalk line or laser level to mark guidelines on the substrate. Maintain the recommended gap between sheets for expansion and contraction, as specified in the installation guide.

Q. What are the best practices for sealing and waterproofing IBS FIBRE® Flex sheets in outdoor installations??

- A. Apply a waterproof membrane or sealant as recommended in the technical literature, especially in areas exposed to moisture. Ensure that tops of balustrades and parapets have a minimum 5° slope and are waterproofed according to the guidelines.

Q. Are there any specific environmental conditions to consider when installing IBS FIBRE® Flex sheets?

- A. Consider the local climate, such as humidity and temperature, and follow the manufacturer's guidelines for installation in various environmental conditions.

Q. How do you handle and dispose of waste materials during the installation of IBS FIBRE® Flex sheets?

- A. Collect offcuts and dust in a designated area and dispose of them according to local regulations. Avoid creating dust and dispose of waste responsibly .

Q. What maintenance is required after the installation of IBS FIBRE® Flex sheets to ensure longevity?

- A. Regularly inspect the sheets for any signs of damage or wear. Clean the surface with mild soap and water, and touch up paint as needed to maintain the protective coating.

12. Limitations

When you are specifying and installing IBS FIBRE® Flex, the IBS FIBRE® Flex Installation Guide must be followed.

- IBS FIBRE® Flex should not be installed on timber framing where the moisture content is greater than 18%.
- Tiles must be installed with a flexible tile adhesive that's also compatible with IBS FIBRE® Flex. Talk to your preferred adhesive manufacturer for recommendations.
- When used as a wall lining ensure stud centres do not exceed 400mm. In high impact areas IBS FIBRE® Flex 6mm may not be suitable.

The below installation areas are considered critical to the successful installation of IBS FIBRE® Flex. Using this sheet as a checklist during installation will aid in problem free product installation and long term product durability post construction.

IMPORTANT NOTES:

All sections of this checklist should be completed in full.

Careful adherence to technical specification literature is critically important for completing IBS Fibre® Flex cement construction. The construction shall comply with requirements of building consent. Any variations made should be approved by the BCA prior to work being undertaken.

The information contained in this document is current as at April 2025 and is based on data available to IBS Sustainable Building Products at the time.

All photographic images are intended to provide a general impression only and shall not be relied upon as an accurate example of IBS RigidRAP® products installed in accordance with this document.

IBS reserves the right to change the information contained in this document without prior notice. It is your responsibility to ensure that you have the most up-to-date information available, including at the time of applying for a building consent. You can call 0800 367 759 or visit www.ibs.co.nz to obtain current information.

IBS has used all reasonable endeavours to ensure the accuracy and reliability of the information contained in this document. However, to the maximum extent permitted by law, IBS assumes no responsibility or liability for any inaccuracies, omissions, or errors in this information, nor for any actions taken in reliance on this information.

13. Installation Checklist

Items to be checked		✓ Tick <input type="checkbox"/>	Notes		
Framing					
1	External wall timber framing is treated to min H1.2 treatment levels. Specify if any other treatment to be used.	<input type="checkbox"/>			
2	Timber framing set out, i.e. Nog or Stud spacing or dwang spacing.	<input type="checkbox"/>			
3	Timber frame moisture content must be as per NZS 3602 at the time of fixing the IBS FIBRE® Flex Sheet.	<input type="checkbox"/>			
4	Framing straightness. Nogs or dwangs must be flush with studs, and studs flush with top and bottom plates.	<input type="checkbox"/>			
5	IBS FIBRE® Flex Sheet direct fixed - The framing overhangs concrete slab by 6mm minimum.	<input type="checkbox"/>			
6	Risk Score	North Elevation	South Elevation	East Elevation	West Elevation
7	Cavity construction - The cavity construction method is to be used where the risk score is 7 or higher to comply with E2/AS1 of the New Zealand Building Code. Cavity battens installed in accordance with IBS FIBRE® Flex Sheet technical specification.	<input type="checkbox"/>			
8	Timber Framing fixed in accordance with NZS 3604 and project specification. Check for extra fixings that may be required for Bracing Systems and Fire and Acoustic systems.	<input type="checkbox"/>			

Items to be checked		✓ Tick <input type="checkbox"/>	Notes
Flexible underlay			
9	Which flexible underlay is used (flexible underlay should comply with E2/AS1).	<input type="checkbox"/>	
10	Flexible underlays to be lapped/installed as per E2/AS1.	<input type="checkbox"/>	
Flashings			
11	Flexible flashing tapes to be applied to window sill framing and head framing as per E2/AS1 when building underlay used.	<input type="checkbox"/>	
12	Flexible flashing tapes to be applied to entire opening.	<input type="checkbox"/>	
13	Head and sill flashings to be provided as per figures in technical specification.	<input type="checkbox"/>	
Sheet fixing and set out			
14	Moisture content in timber framing before cladding installation must not exceed 18%.	<input type="checkbox"/>	
15	IBS FIBRE® Flex Sheets to be installed dry.	<input type="checkbox"/>	
16	Joints installed as per technical specification.	<input type="checkbox"/>	
17	Sheet fixing carried out as per IBS FIBRE® Flex Sheet technical specification literature.	<input type="checkbox"/>	

Items to be checked		✓ Tick <input type="checkbox"/>	Notes
Flexible underlay			
9	Which flexible underlay is used (flexible underlay should comply with E2/AS1).	<input type="checkbox"/>	
10	Flexible underlays to be lapped/installed as per E2/AS1.	<input type="checkbox"/>	
Flashings			
11	Flexible flashing tapes to be applied to window sill framing and head framing as per E2/AS1 when building underlay used.	<input type="checkbox"/>	
12	Flexible flashing tapes to be applied to entire opening.	<input type="checkbox"/>	
13	Head and sill flashings to be provided as per figures in technical specification.	<input type="checkbox"/>	
Sheet fixing and set out			
14	Moisture content in timber framing before cladding installation must not exceed 18%.	<input type="checkbox"/>	
15	IBS FIBRE® Flex Sheets to be installed dry.	<input type="checkbox"/>	
16	Joints installed as per technical specification.	<input type="checkbox"/>	
17	Sheet fixing carried out as per IBS FIBRE® Flex Sheet technical specification literature.	<input type="checkbox"/>	

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IBS FIBRE® Flex

Design & Installation Guide



September 2025



Scan the QR code to view all
IBS FIBRE® Flex documents.

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🌐 www.ibs.co.nz