IBS EUROFloor

Design & Installation Guide

IBS
SUSTAINABLE BUILDING PRODUCTS

THREE GREEN TICK APPROVED

BUILDING BETTER HOMES

Proudly Kiwi Owned and Operated for over 30 years

100% NEW ZEALAND OWNED

0800 367 759 www.ibs.co.nz info@ibs.co.nz

IBS
SUSTAINABLE BUILDING PRODUCTS

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.

OUR PRODUCT RANGE

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.

- **IBS RigidRAP®**
- **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**

Contents

NZBN 9429000097253

Contact us for more information or to talk to our team.

www.ibs.co.nz | 0800 367 759 | info@ibs.co.nz

1. Introduction

1.1 Introduction

IBS Eurofloor is a high-quality, moisture-resistant Oriented Strand Board (OSB) panel designed specifically for the New Zealand market. Made from sustainably sourced Scotts Pine logs from PEFC forests in Germany, it consists of three layers of wood strands bonded together with heat-cured adhesives. This construction provides strength, durability, and dimensional stability, making it resistant to delamination and warping.

IBS Eurofloor is suitable for various applications, including flooring in timber or steel-framed buildings, stair construction, shelving, cabinetry, and even wet areas like bathrooms and laundries when used with appropriate waterproofing

IBS EUROFloor sheets are available in sizes of 2400 or 3600 x 1200 x 20mm and has a plastic tongue and groove jointing system along the long edge of the sheet. IBS EUROFloor is manufactured in accordance with EN13986:2004, it is suitable for use in humid conditions where the panel in-service moisture content does not exceed 20%. Compliance with the NZ Building Code (NZBC) is established through product certification (CodeMark).

1.2 Scope

The scope of this specification pertains to the use of IBS FIBRE® Weatherboard, 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® Weatherboard for construction methods, including direct fixing or cavity installations, specifically for external walls of timber-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, and specifiers involved in the specification of IBS FIBRE® Weatherboard.

1.3 Sizes & Applications

TABLE 1 | IBS EUROFloor Technical Specifications

Length (mm)	Width (mm)	Thickness (mm)	Weight per m2 of sheet (kg/m2)
3600	1200	20	55.1
2400	1200	20	36.7

IBS EUROFloor Product Details		
Untreated	**Tongue & Groove**	**Exposure (days)**
Yes	Plastic tongue, long edge	90

1.4 Benefits of IBS FIBRE® Weatherboard:

Enhanced Strength and Durability: OSB4 offers higher load-bearing capacity and bending strength compared to OSB3, making it ideal for demanding structural applications.

Improved Moisture Resistance: OSB4 panels are more resistant to moisture, reducing the risk of swelling and warping, which ensures long-term stability and performance

Sustainability: Made from sustainably sourced wood, IBS EUROFloor is an environmentally friendly choice. It contributes to reducing deforestation and promotes responsible forest management.

Better Environmental Performance: OSB4 is manufactured with lower formaldehyde emissions, contributing to a healthier indoor environment and meeting stricter environmental standards

Versatility: IBS EUROFloor can be used in a wide range of applications, including floor framing, stair construction, and cabinetry, providing a reliable and versatile solution for your building needs.

Easy Installation: The product's precision-engineered design ensures a seamless fit and easy installation, saving you time and labour costs.

Advantages of OSB4 over OSB3:

Higher Load-Bearing Capacity: OSB4 products like IBS EUROFloor are designed to handle greater loads, making it ideal for demanding construction projects.

Improved Moisture Resistance: OSB4 offers better protection against moisture, ensuring that your flooring remains intact and performs well even in challenging conditions.

Longer Lifespan: The enhanced durability and moisture resistance of OSB4 products result in a longer-lasting flooring solution, providing better value for your investment.

1.5 Supporting Info & Documents

This document must be read in conjunction with the:

- IBS Product Specification for IBS EUROFloor
- IBS Maintenance and Warranty for IBS EUROFloor

All other information including any updates are available at www.ibs.co.nz.

2. Best Practice

2.1 Health & Safety

IBS EUROFloor 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 EUROFloor panels 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 EUROFloor can be supplied with protective plastic sheeting wrapped around the product.

IBS EUROFloor should be stored indoors and under cover whenever possible. If outdoor storage is necessary, it should be limited to short periods. Additionally, panels should not be stacked on wet concrete floors.

When stored outdoors, panels must be shielded from the weather. Use a breather-type cover, ensuring it is supported above the top and sides of the panels with battens to allow air to circulate freely around the pack.

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/ Drilling

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 1,2) 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 1
Fibre cement blade.

Figure 2
Fibre cement blade.

Also use the following method to cut IBS EUROFloor Lining:

- Hard tipped handsaw
- Skill saw with tungsten tipped blade
- Electric drill with hole saw and high-speed drill bits
- Caulking gun
- Nail gun optional
- Screw gun optional

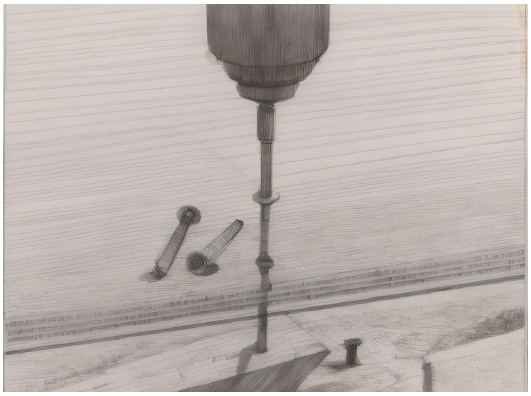
Dust reducing circular saw equipped with a Blade Saw Blade and connected to a M Class or higher vacuum.

During Cutting:

- Ensure good ventilation in the area.
- Position the cutting station to direct dust away from yourself and others.
- Rotate employees on cutting tasks during the shift.
- Use a Blade Saw Blade (or equivalent) with a dust-reducing circular saw connected to an M Class or higher vacuum.
- When sawing, sanding, rebating, drilling, or machining:
- Wear a P1 respirator or higher, fitted according to manufacturer instructions.
- Keep people at least 2 meters away from the cutting station.
- If not clean-shaven, use a powered air respirator with a loose-fitting head top.
- Wear safety glasses and hearing protection.
- Ensure others nearby follow the same safety measures.
- Clean up carefully; never dry sweep. Use water, wet wipes, or an M Class or higher vacuum.

Drilling IBS EUROFloor 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.
See 2.4 below for details.

2.4 Penetration



For smooth, clean cut circular holes:

- Mark the centre of the hole on board.
- Pre-drill a hole to be used as a guide.
- Cut hole to the required diameter using a hole saw fitted to a 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.

When cutting indoors :

- Avoid using a circular saw indoors.
- Set up the cutting station in a well-ventilated area.
- Cut ONLY with a Knife, hand guillotine, or fiber shears (manual, electric, or pneumatic).
- Clean up thoroughly, but never dry sweep. Always hose down with water or use a wet wipe, or employ an M Class or higher vacuum.

If you still have concerns about exposure levels or are unable to implement the suggested practices, please consult a qualified industrial hygienist for further guidance.

Safe Working Practices :

- Never dry sweep; always use an M Class vacuum or dampen dust first.
- Never use grinders.
- Always use a dust-reducing circular saw with a suitable blade, connected to an M Class vacuum.
- Warn others before cutting to minimise dust exposure.
- Always follow tool manufacturers' safety guidelines.
- Expose only the necessary blade depth for the material thickness.
- Always wear a properly fitted dust mask or respirator (P1 or higher).
- Rotate personnel on cutting tasks to limit silica exposure.

3. Durability

3.1 Compliance

When IBS EUROFloor is stored, handled and maintained in accordance with this Design and Installation Guide then the durability and performance requirements will be met for NZBC (a) B2.3.1 for 50 years.

It is important to note that all details and methods should be followed and observed as well as good building practice to avoid noncompliance.

To minimise 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 P1 or higher.

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.

3.3 Conditions

- IBS EUROFloor should not be exposed to weather conditions for more than 12 weeks.
- Moisture saturation and exposure to sub-zero temperatures can affect IBS EUROFloor properties.
- IBS EUROFloor should be stored indoors and under cover whenever possible. If outdoor storage is necessary, it should be limited to short periods. Additionally, panels should not be stacked on wet concrete floors.
- When stored outdoors, panels must be shielded from the weather. Use a breather-type cover, ensuring it is supported above the top and sides of the panels with battens to allow air to circulate freely around the pack.

3.4 Defects

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

3.5 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.

- Follow manufacturer guidelines for expansion joints and movement accommodation
- Inspect the IBS EUROFloor for any damage before installation; replace any damaged sheets.
- 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 timber frame walls longer than 12m, it is best practice to allow for construction joints to accommodate movements generated due to timber shrinkage or defections.

3.6 Prohibited Uses

Specifiers, designers and installers must ensure that any time that IBS EUROFloor 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.

- Panels are not for use in uncovered exterior areas, such as open verandas.
- Once installed, panels must not have a moisture content above 16%.
- Panels should not be used as a substrate for decking membranes.

3.7 Fire ratings

IBS EUROFloor is suitable for use as flooring in detached dwellings that do not have specific fire resistance rating requirements under the NZBC (purpose group SH). For other occupancy types, the product’s suitability depends on factors such as the number of stories, the number of full and intermediate floors, and whether the building is sprinkler-protected.

To comply with clause C3.4(b) of the NZBC, IBS products have been assigned a critical radiant flux value of 2.2 kW/m^2.

Heat

- Panels must be kept clear of fuel-burning appliances, flues, and chimneys as per NZBC Section C – AS/1.
- Panels should not be exposed to temperatures above 50˚C for extended periods.

4. Design

4.1 Check the Substrate

- The framing must 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.

4.2 Timber substrates

For best results when direct overlaying, use a combined nail/full spread adhesive method. This eliminates any tendency for "drumming" in the new floor. A construction adhesive is recommended and should be applied as a full spread, to the manufacturer's instructions.

Existing tongue and groove wooden floors shall be refixed and repunched as applicable, and then coarse sanded to provide a flat substrate. Ensure that there are no protruding nails prior to machine sanding.

When overlaying a tongue and groove timber floor, or existing particleboard floor, ensure that the joints in the new panels do not occur directly above parallel joins in the base floor.

All clearances, fastening and finishing detail applies equally where described elsewhere in this manual.

4.3 Concrete substrates

For best results when direct overlaying onto concrete, use a full spread adhesive method. This reduces panel movement and "drumming".

Mechanical fixing of direct overlays on concrete floors should be avoided.

A construction adhesive is recommended and should be applied as a full spread, to the manufacturer's instructions.

4.4 Non-specific design

Joist selection

Joists are available in solid timber, engineered timber ("I" joists), and steel, each with unique benefits. Using solid timber or "I" joists with a moisture content under 15% is recommended for the following advantages:

- Reduced post-construction shrinkage, distortion, and fastener noise.
- Limited deflection, as dry timber is stronger and stiffer.
- Lighter and easier handling, especially with "I" joists.

If "wet" timber is necessary due to NZS 3602 treatment requirements, ensure it is straight and undistorted, or consider laying panels afterward.

4.5 Sub-floor ventilation

Sub-floor ventilation is required for all suspended platform floors to maintain IBS EUROFloor moisture content below 16%. The following ventilation levels are the minimum needed. Failure to control moisture may lead to non-performance, for which IBS will not be liable.

5. Installation

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

5.1 Installing IBS EUROFloor

When stored, handled, installed, and maintained according to the guidelines in this document, IBS EUROFloor panels will meet the durability performance requirements of NZBC B2.3.1 (a) for 50 years. The specifications, details, and methods outlined here must be strictly followed to ensure compliance with the building code. IBS will not be held liable if the storage, handling, installation, and maintenance conditions for IBS EUROFloor panels, as specified in this document, are not adhered to.

Note: IBS EUROFloor only comes as untreated panel.

Wet Areas

IBS EUROFloor can be used in all wet areas including bathrooms, laundries and showers, this is provided that it has the necessary waterproof membrane. The water impervious membrane must cover the floor and be coved at the walls. Refer to Acceptable Solution E3/AS1.2.12.

Important Note:
Before installing, store the boards on site for 48 hours to acclimatise to the installation site moisture level. Where IBS EUROFloor is exposed to excess moisture, mechanical sanding may be required if swelling has occurred at the panel joints. Ensure that you follow all the handling and storage conditions to ensure that the warranty is not compromised.

5.2 Ancillary Products

Adhesive - must be construction grade and compatible with wood or steel products.

Nails - must be a minimum of 60mm annular grooved and either galvanised or stainless depending on the exposure zone.

Screws - must be self-tapping, countersunk head and 45mm x 8 ga.

Important Note:
Mild steel or light zinc coated fixings can be used, however this is not recommended where the floor is exposed to the elements or where a visual finish is required. For the best results, stainless steel fixings are recommended.

Also ensure that the right fixings are used taking into consideration the exposure zone.

Recommended Fasteners/Adhesive Options

TABLE 2 - IBS EUROFloor recommended Adhesives	
Sikaflex®-123 MS Bond	Continuous beads to the top of each joist and between the sheets at the ends and edges of 5 mm. Continuous bead on top of the tongue of 2 mm *Important to follow manufacturers install guide for all adhesives.
Holdfast - Gorilla Grip	
Bostik - Alpha Grip	
Selleys - Liquid Nails	

5.3 Joist Spacing

Maximum joist spacing is 600mm. The closer the joists are the more rigid the floor.

5.4 Expansion Gaps

IBS EUROFLoor should have one expansion joint every 10 meters in either direction. You will also need to leave a 10mm gap around the perimeter of the installed boards to allow for expansion and contraction. An expansion gap consists of a 13mm PEF backing rod and then filled with a sealant or caulking compound.

The PEF backing rod and sealant should be installed as per the manufacturer's installation guide. IBS does not have a preference to any one PEF system, if it is an approved and recognised system.

5.5 Insulation

IBS EUROFloor panels used to create an on-ground platform floor will contribute to the building performance index of the building envelope; however, additional insulation will be required to meet the thermal insulation standards outlined in NZBC H1.3.2.

For calculation purposes, the R-value of 20mm IBS EUROFloor panels is considered to be 0.17 m^2K/W. When installing insulation, it is essential to follow the manufacturer's instructions for the chosen material. Additionally, it is crucial to maintain moisture control in the sub-floor area, as high moisture levels may reduce the effectiveness of certain insulation materials.

5.6 Laying the Panels

1. Place IBS EUROFloor with the long edge spanning the supports (ie major axis at right angles to horizontal joists). Ensure the panels are all laid with the laser printed side down onto the joists.

2. Stagger in stacked end joints (brickwork) pattern.

3. Where floors are retrofitted, or installed inside the wall frame, a 10mm perimeter expansion gap should be left.

4. Nail or screw the IBS EUROFloor panels to the joists within 15 minutes of positioning the panels to ensure the adhesive does not go off prior to mechanical fixing.

5. Follow the manufacturers installation instructions.

6. Remove excess adhesive from sheets.

7. If cutting IBS EUROFloor, ensure that you re-seal any cut edges with a water-based polyurethane to maintain the integrity of the wax sealed edge.

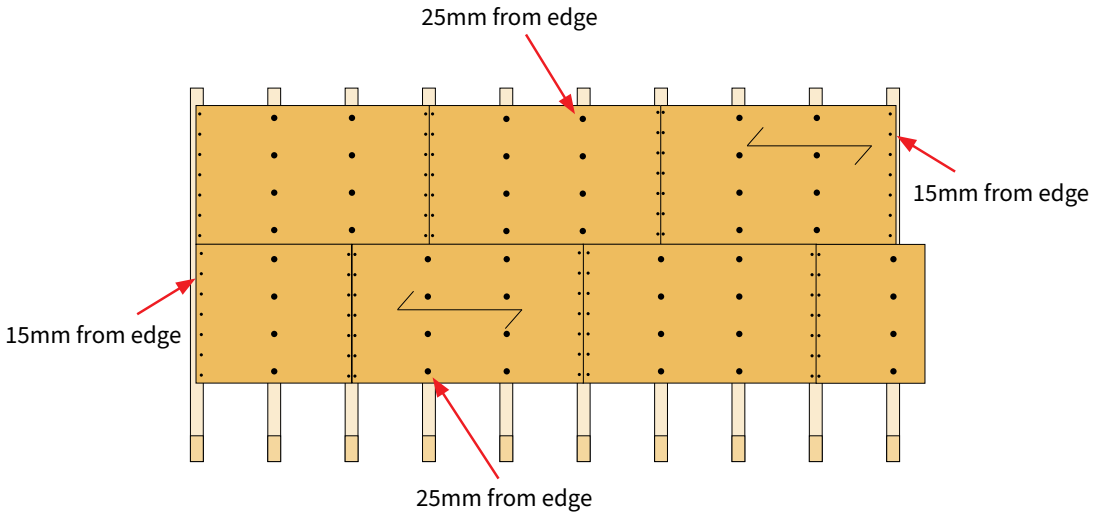


Figure 8
Joist Spacing

5.7 Ground Clearance

A minimum clearance of 550mm must be maintained between the ground surface beneath the building and the underside of the flooring panels to ensure adequate sub-floor air circulation and allow for inspection of the sub-floor structure.

This 550mm clearance cannot be reduced, even when vapour barriers are installed. While vapour barriers may reduce the ventilation requirements, they do not affect the clearance dimension.

For details on ground clearance, refer to Figure ?.

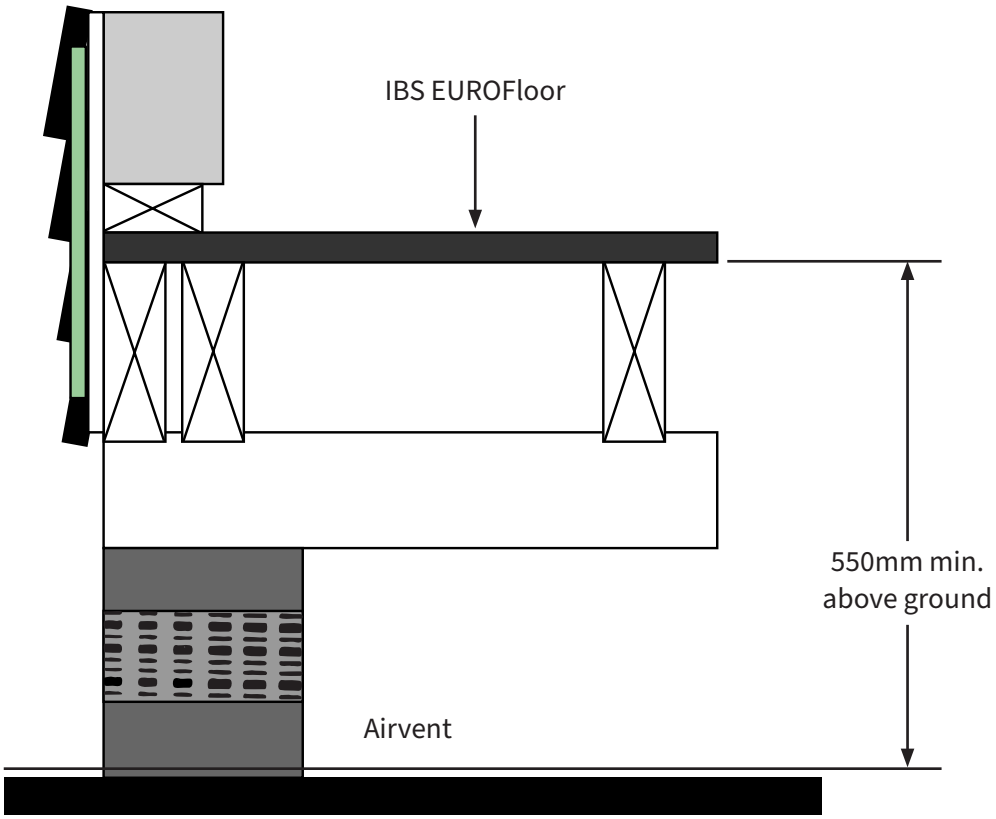
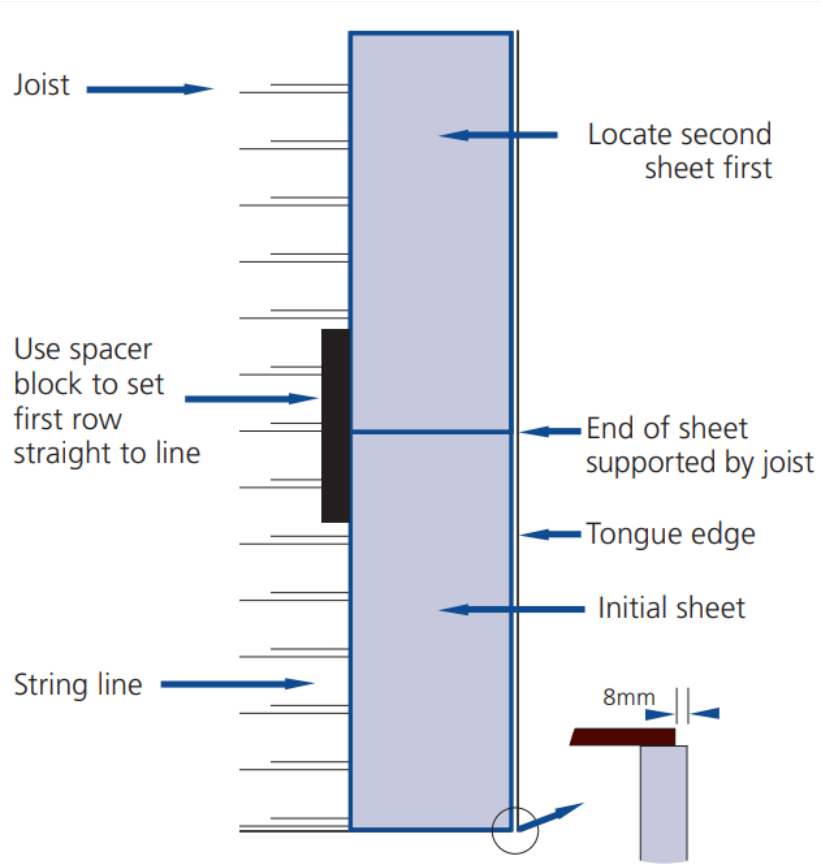


Figure ?
Ground clearance

5.8 IBS EUROFloor Tongue & Groove

Tongue & Groove

- Minimize weather exposure and stagger sheets across at least three joists.
- Ensure panels are placed with the brand name down and leave an 8mm gap between edges and fixed objects.
- Provide continuous edge support at the perimeter and use tongue-and-groove support in wet areas or under rigid finishes like tiles, unless using appropriate underlay.
- Avoid aligning joins on the underlay with panel joins. Fixings must be flush, tightened, and nails punched before sanding. Close panel edges without cramping.
- Remove standing water immediately. Do not cover with polythene or apply sealers during weather exposure.



Notes:

C7.1: At this stage the tongue in the first row is redundant and can be removed for use elsewhere, if required.

C7.2: Refer 7.6 Diaphragm floors.

The following information applies to all EUROFloor Tongue & Groove panels:

Panels shall always be laid across the joists. (Refer figure 7.2 for panel orientation).

Lay the first row with the brand name down and the tongue aligned to the perimeter of the floor (refer figure 7.3).

Ends of sheets should be close butted and centred over joists.

Check the grooved edge, for straightness, with a string line.

Fix panels with only sufficient fastenings to avoid movement – this will stop any distortion of the grooved edge prior to further installation.

Allow for a stagger of at least one joist space and position the first sheet of the second row, with the tongue adjacent to the groove of the first row.

If adhesive is to be used, apply a thin bead along the top of each tongue, before insertion into the groove.

Lay a blocking piece (an off-cut of minimum ex 150mm x 50mm timber 1.4m long) across the joists, in the centre of the panel, on the grooved edge.

Stand on the blocking piece and strike with a heavy hammer to drive the panel tongue into the groove of the first row.

It will assist if a second person can stand on the joint between the two rows.

Fix, as before and continue the process to complete the second row – the first row can now be fully fixed.

Subsequent rows are similarly installed to complete the floor.

Finishing the Floor

IBS EUROFloor should not be left in its raw state. It is required to be sealed or overlaid with an appropriate protective covering such as Ceramic Tile underlay for tiles, a membrane system compatible with a composite timber, carpet, solid timber flooring or may be sealed with a polyurethane system. (refer to manufacturer for coating details)

If you are going to finish IBS EUROFloor with a clear finish after the construction period you will need to protect the boards against soiling and wearing during the construction period.

Sand the boards prior to polyurethane being applied. Limit sanding as much as possible and to a maximum of 2mm off the face of the board.

5.9 IBS EUROFloor Square Edge

Square Edge

The following applies to IBS EUROFloor Square Edge panels only:

Support all panel edges and ends with joists and nogs/dwangs, using timber of at least 100mm x 50mm.

For 400mm or 600mm joist spacing, panels can be laid with or across the joists (see figures 7.1 and 7.2).

For 450mm joist spacing, panels must be laid across the joists (see figure ?).

When using clear finishes, ensure panel sizes, types, and batches are consistent.

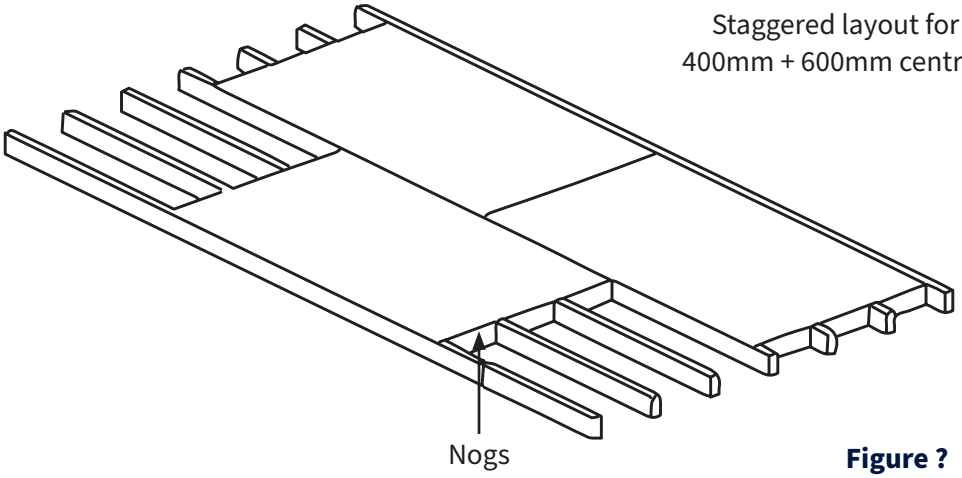


Figure ?
Square Edge panel

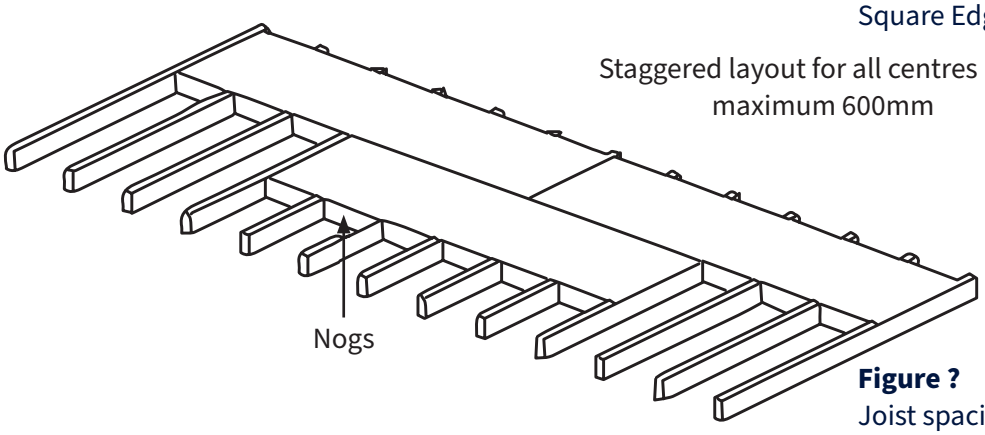


Figure ?
Joist spacings on
Square Edge panel

Notes:

C7.1: For part panels, consider the location and potential loads. In areas with regular foot traffic or heavy loads, install nogs/dwangs at joist spacing intervals.

C7.2: This ensures no shading between panels. The five-digit number on the panel's underside is the batch number.

5.10 IBS EUROFloor Large floors

A large floor is one with a length or width exceeding 25m.

All large floors that are pre-laid (exposed to weather) shall provide for panel expansion.

This can be achieved by:

Leaving out one row of flooring panels across the building width at centres not exceeding 25m until the structure is completely closed in.

Providing a 40mm wide expansion gap under partition lines or other hidden situations, at no greater than 25m intervals. (refer figure 7.4) Insert a filler strip on completion.

All large floors that are post-laid (not exposed to weather) do not require expansion provisions.

It is essential that no exposure of any type occur.

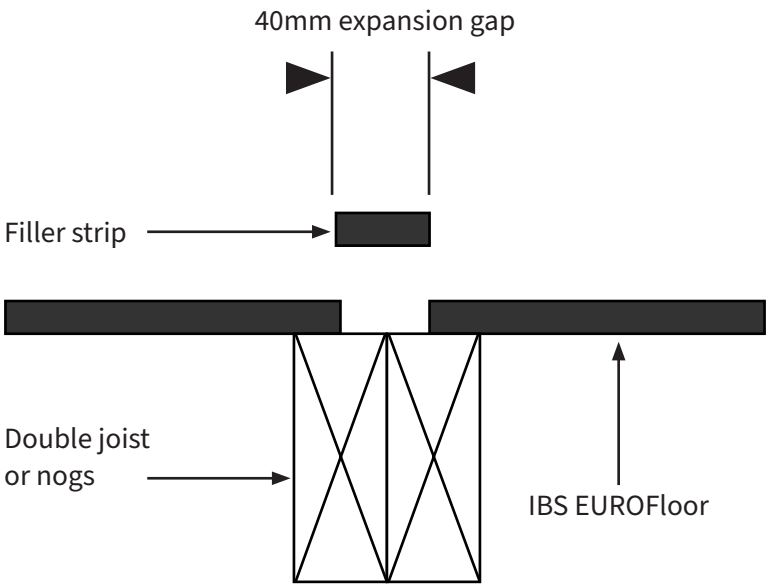


Figure ?
Expansion gap

Notes:

C7.1: When using a part panel, consider the location and potential loads. For areas with foot traffic or heavy loads, install nogs/dwangs at joist spacing intervals.

C7.2: This prevents shading between panels. The five-digit number on the underside is the batch number.

6. Fixing

6.1 Fixing IBS EUROFloor

The type and position of the fastening chosen is important for long-term performance. Incorrectly fixed panels and high moisture content in timber may lead to squeaking floors which can be difficult to remedy at a later date.

Table 7.3. on page 24 gives details of acceptable fastener types. All others are unacceptable.

Perimeter fixing shall be 10mm from the panel edges except where long edges have tongues.

Increase to 15mm to avoid tongue damage.

6.2 Nails

Hand-driven nails shall initially be driven flush with the surface. Punching of nails must take place after building is closed in – just prior to sanding. This allows for the moisture content of joists to dry during building construction.

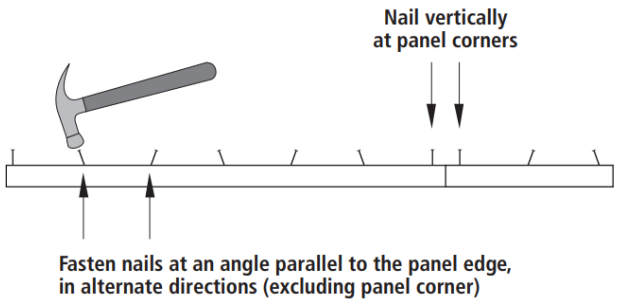
Hand-driven nail fastening usually provides a better finish for clear coatings than power-driven nails.

To improve lateral holding, nails shall be slightly angled and be driven parallel to the sheet edge (refer figure 7.5).

When using power-driven nails, set the depth adjuster attachment on the power tool to drive nails flush with the surface of the panel. This will allow hand punching to take place just prior to sanding.

The use of the pre-punching mechanism increases the risk of squeaky floors, as any timber shrinkage that occurs as the supports dry out is not taken up later as is the case when the punching process is carried out at sanding and floor finishing stage.

Figure 7.5



Screws

For best results when screw fixing IBS EUROFloor products ensure the panel is in contact with the joist when installing the screw. Drive the head of the screw not more than 2mm below the surface.

6.3 Supporting timber

The moisture content of the support system at the time of laying and fixing the flooring panels can affect the performance of the total floor system. As wet framing dries it will shrink. This can reduce the effectiveness of the fixing, allowing movement of panels resulting in floor squeaking and nailhead rise under vinyl flooring.

The use of kiln dried timber or “I” joists is therefore recommended.

Herringbone strutting in lieu of solid blocking will reduce the likelihood of a noisy floor. End nailing of solid blocks often result in squeaking and is hard to rectify once the structure is closed in.

6.4 Application

- Adhesive fastening – Use construction adhesive to joists in conjunction with mechanical fixing.
- Apply adhesive in a continuous 5mm bead to all floor joists. For Tongue & Groove panels, apply a 2mm bead of construction adhesive to the top of the tongue prior to insertion into the groove.
- Remove excess adhesive. Apply adhesive in a continuous 5mm bead to all floor joists and between sheets ends and edges (Square Edge panels) where they butt together.
- Nail fixing – Nail panel ends (and panel edges for Square Edge) at 150mm centres 10mm from the edge. Nail intermediates at maximum 200mm, with all nails slightly skewed except for corner vertical nails. Where Tongue & Groove material is used, nails shall be 15mm from the edge to avoid tongue damage.
- Screw fixing – Screw panel ends (and panel edges for Square Edge panels) at 150mm centres 10mm from the edge. Screw intermediate support at maximum 200mm.
- For Tongue & Groove panels, locate screws 15mm from the edge to avoid tongue damage. Pre-drill the panel for screw fixing.

6.5 Adhesive

Adhesive is recommended for use in conjunction with mechanical fastening.

Adhesive should be applied in a continuous 5mm bead to all floor joists & nogs if present, and between sheet ends and edges square edge panels. A 2mm bead should be applied along the tongue of the tongue & groove panels as they are laid.

Refer to Table 7.2 for a list of adhesive options

Fixing Spacing

TABLE: Maximum Fastener Spacing	
	Nails/Screws
Centres at edges (on board's perimeter)	150 mm
Centres at the intermediate supports	300 mm

TABLE: Maximum Fastener Spacing from Board's Edge	
	Nails/Screws
Min fixing distance from board's square edge	15 mm
Min fixing distance from boards T&G edge	25 mm

Type of Fasteners

Timber Joists	**Minimum Size (mm)**	**Fixing Centres (mm)**	
		Edges	**Centres**
Annular Grooved Timber Flooring nails	60	150	300
Galvanised Jolt head nails	60	150	300
Self Drilling Screws (Corrosion Resistant)	8 gauge x 45	150	300

Steel Joists	**Minimum Size (mm)**	**Fixing Centres (mm)**	
		Edges	**Centres**
Tek Self Drilling Screws (Corrosion Resistant)	10 gauge x 45	150	300

7. Finishing

7.1 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.

7.2 Sealants

All sealants must comply with the relevant NZBC requirements. Their application should follow the manufacturer's instructions. Before applying a coating over sealants, consult the sealant manufacturer, as some may not recommend this.

7.3 Final Cleanup

Ensure a thorough and detailed finish by carefully wiping down all surfaces with warm, soapy water, taking extra care to remove any remaining construction marks, dirt, or residual materials, leaving the area clean and polished for a professional, immaculate appearance.

7.4 Completion

Leave work to the standard required by following procedures.

Remove all debris, unused materials and elements from the site.

7.5 Surface finish

Carpet and wet area membrane – Single cut with a drum or belt sander – 60 to 100 grit.

Sheet vinyl – Single cut with a drum or belt sander – 60 to 100 grit. Installation of vinyl floor covering requires the application of a flexible or sheet underlayment. Refer to vinyl manufacturers technical installation data.

8. Care & Maintenance

8.1 Care & Maintenance

Under normal conditions, IBS EUROFloor cement boards will not need maintenance, other then regular cleaning.

If water damage does occur to an area where IBS EUROFloor panels have been used, then they may need to be replaced. Do not use cream cleaners or harsh scrubbing methods. Use a soft cloth to clean. Commercial-grade chemicals should not be used.

Maintain the 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.
- Ensuring the paint system is maintained.

9. Warranty

9.1 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® Gloss (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

( ) 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.

10. Technical Properties

IBS EUROFloor is a OSB3 (Oriented Strand Board) panel. The product is a moisture resistant, engineered structural wood panel made from PEFC forests in Europe. IBS EUROFloor is specifically designed for the New Zealand market. IBS EUROFloor is engineered in Europe with our partner Swiss Krono from environmentally sustainable sources. IBS EUROFloor consists of three layers of wood strands bonded together with heat-cured adhesives.

Each layer is orientated at right angles to the adjacent layer creating a strong, dimensionally stable panel that resists delamination and warping. The absence of natural imperfections such as knots provides certainty of performance.

10.1 Environmentally Friendly

Our supply partner Swiss Krono paves the way for forward looking eco-friendly, high quality buildings for people wishing to create a stronger, healthier home.

Homes that are built with wood and wood-based materials are healthy to live in and good for the environment, whilst letting the occupants enjoy a pleasant, comfortable atmosphere and indoor climate.

Swiss Krono only uses formaldehyde free binders in the manufacturing process to create our panel.

Swiss Krono holds both FSC and PEFC Certifications.

10.2 Eco-friendly Homes

For renovation refurbishment and new eco-friendly homes, thanks to good Swiss precision,

IBS EUROFloor has great technical properties and a seamless surface. IBS EUROFloor is well

suited for renovating or refurbishing existing buildings and the construction of new ecof-riendly homes.

10.3 Max Point Loads

This is calculated as a point load at the mid - point betweeen spans

Centres (mm)	Max Point Loads (kN)
600	2.1
450	2.4
400	2.5
360	2.7
300	3.0

Important Note: All flooring sheets must be fixed to a minimum of 3 joists.

Strength and Formaldehyde Information

Properties	Test Method	Unit	Major Axis (0^0, II)	Minor Axis (0^0, II)	Class 1 AS/NZA 1806.1
Formaldehye Emission	Formaldehyde Release	Mg/m^3	<0,01		E1<1.5
Modulus of Rupture (MOR)	EN 13986	MPa	50	50	19
Modulus of Elasticity	EN 13986	MPa	4930	1980	2750

Span Table UDL

Deflection	Maximum vertical load 400 crs kN/m^2	Maximum vertical load 450 crs kN/m^2	Maximum vertical load 600 crs kN/m^2
Regular Construction	10.18	7.08	4.53
Diaphragm Construction	10.18	7.04	3.6

EUROFloor Technical Properties

Panel Tolerances	
Bulk Density	600 Kg / m3
Length and Width Tolerances	+ / - 3 mm
Squareness Acc to EN324-2	2 mm / m
Max Deviation in Board Thickness	+ / - 0.8mm
Thermal Conductivitiy acc to EN 13986	0.13 W/mK
Water Vapour Permeability	>2.0m - Dry
Thickness Swelling acc to EN 317	< 15 %
Coefficient of expansion for 1% change in wood moisture	0.03 %
Air Permeability at 50 PA	0.14 m^3 /hm^2
Waste code EWC	03 01 05
Reaction of fire performace class acc to EN13501-1	D - s2, d0
Sound Absorption Frequency Range 205 Hz to 500Hz	0.10 dB
Sound Absorption Frequency Range 1000 Hz to 2000Hz	0.25 dB

11. Additional Resources

11.1 Compliance and Information

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

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

11.2 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.

WIP - Not updated

12. Frequently Asked Questions

Q. What is IBS FIBRE® Gloss?

A. IBS FIBRE® Gloss is a high-gloss finish product designed for various surfaces, offering both aesthetic appeal and superior protection.

Q. What surfaces can IBS FIBRE® Gloss be used on?

A. It is perfect for wall lining, shower lining, counter splashbacks, ceilings, and soffit linings. It can be installed over Existing Framing, Masonry walls when strapped out or Plasterboard.

Q. What are the benefits of using IBS FIBRE® Gloss?

A. It provides a stunning, glossy finish, is easy to install, and offers unparalleled protection against everyday wear and tear.

Q. How do I prepare the surface before installing IBS FIBRE® Gloss?

A. Ensure the surface is clean, dry, and free from any contaminants. Any existing coatings or finishes should be removed.

Q. What tools are required for the installation of IBS FIBRE® Gloss?

A. Standard carpentry tools, including a high-speed cutting tool, drill, screws or nails, tape measure, and level.

Q. Can IBS FIBRE® Gloss be used in wet areas?

A. Yes, it is suitable for use in wet areas such as bathrooms and kitchens.

Q. How do I cut IBS FIBRE® Gloss sheets?

A. Use a high-speed cutting tool with a carbide-tipped blade for clean cuts.

Q. What safety precautions should I take when installing IBS FIBRE® Gloss?

A. Work in a well-ventilated area, use dust masks and eye protection when cutting or sanding the sheets.

Q. How should IBS FIBRE® Gloss sheets be stored before installation?

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

Q. What is the recommended spacing between IBS FIBRE® Gloss sheets during installation?

A. Maintain the recommended gap between sheets for expansion and contraction, as specified in the installation guide.

Q. How do I ensure proper alignment and spacing when installing IBS FIBRE® Gloss?

A. Use a chalk line or laser level to mark guidelines on the substrate. Always ensure that that are installed level and flush with the framing.

Q. Can IBS Fibre Gloss be used for exterior applications?

A. It is designed for interior use, but it can be used in protected external areas such as soffit or eave linings.

Q. How do I clean and maintain IBS FIBRE® Gloss surfaces?

A. Clean with a mild detergent and water. Avoid using abrasive cleaners or tools that could damage the surface.

Q. What is the warranty period for IBS FIBRE® Gloss?

A. The product comes with a warranty that covers defects in materials and workmanship for a period of 15 years.

Q. What is the recommended adhesive for IBS FIBRE® Gloss?

A. Use a high-quality adhesive that is suitable for the substrate and follow the manufacturer's recommendations such as Sika®Flex-123 MS Bond, Sika® Premium, Soudal Fix All High Tack, Bostik Tuf as nails or Sikasil NG Sealant for use as a sealant.

Q. How do I handle and transport IBS FIBRE® Gloss sheets?

A. Handle with care to avoid damage. Transport the sheets flat and secure them to prevent movement.

Q. What are the environmental benefits of using IBS Fibre Gloss?

A. IBS FIBRE® Gloss is made from sustainable materials and is designed to be durable, reducing the need for frequent replacements.

13. Limitations

When you are specifying and installing IBS EUROFloor the Installation Guide must be followed.

IBS EUROFloor should not be installed on timber framing where the moisture content is greater than 18%.

When used as a wall lining ensure stud centres do not exceed 600mm.

The overleaf installation checks are considered critical to the successful installation of IBS EUROFloor . 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 EUROFloor construction. The construction shall comply with requirements of building consent. Any variations made should be approved by the BCA prior to work being undertaken.

Notes:

14. Installation checklist

Installation checklist for IBS EUROFloor board based on the information available:

	Items to be checked	✓ Tick ☐	Notes
	1. Pre-Installation Checks		
1	Verify that the installation area complies with the NZ Building Code.	☐	
2	Ensure the framing is suitable for the intended building work.	☐	
3	Check that all necessary tools and materials are available.	☐	
4	Perform a dry layout to ensure proper fit before installation.	☐	
	2. Handling and Storage		
5	Ensure proper handling and storage of the panels to avoid damage.	☐	
6	Store boards flat and off the ground, covered to protect from weather and onsite damage.	☐	
7	Perform a dry layout to ensure proper fit before installation.	☐	
	3. Cutting and Drilling		
8	Trim the sheets to the correct size as needed.	☐	
9	Always follow safety guidelines for dust and debris control.	☐	
	4. Installation		
10	Install the ceiling panels first, if applicable.	☐	
11	Use the correct fasteners and adhesives compatible with IBS FIBRE® Gloss.	☐	
12	Prepare the substrate according to the guide's recommendations.	☐	
	5. Board Fixing		
13	Fix boards firmly to the framing, ensuring they are properly aligned and spaced.	☐	
14	Finish joints smoothly to prepare for painting or tiling.	☐	

	Items to be checked	✓ Tick ☐	Notes
	6. Jointing and Finishing		
15	Ensure proper sealing of wet areas with kitchen and bathroom-grade silicone.	☐	
16	Press the panels gently against the adhesive to join.	☐	
17	Apply double-sided foam tape to the frame. Use a continuous bead of appropriate glue for adhesion.	☐	
	7. Tiling, Painting, and Finishing		
18	Follow the diagrams for shower installations.	☐	
19	Follow manufacturer's recommendations for adhesives and finishes.	☐	
	8. Post-Installation		
20	Inspect the installation to ensure all boards are securely fixed and finished.	☐	
21	Address any issues before proceeding with further construction or decoration.	☐	
	9. Maintenance		
22	Regularly clean the panels using a soft cloth and hot soapy water.	☐	
23	Avoid using acidic, alkaline, or abrasive cleaners on the panels.	☐	
	10. Health and Safety		
24	Always use personal protective equipment (PPE) when handling, cutting, and installing the boards.	☐	
25	Follow all health and safety guidelines to prevent accidents.	☐	

SUSTAINABLE BUILDING PRODUCTS

IBS EUROFloor

Design & Installation Guide

2024

Scan the QR code to view
all IBS EUROFloor documents.

3 Zelanian Drive, East Tamaki
Auckland, New Zealand 2013

General Inquiries:

0800 367 759 **info@ibs.co.nz** **www.ibs.co.nz**