

1 GENERAL

If you have pre-customised this work section using the "questions and answers" provided as part of the downloading process, it may be necessary to amend some clauses to suit the final project-specific version.

The section must still be checked and customised to suit the project being specified, by removing any other irrelevant details and adding project-specific details and selections.

This section relates to the supply and fixing of **IBS EUROFloor** in both residential and commercial buildings.

Modify or extend the above description to suit the project being specified.

For wet areas under NZBC E3/AS2, this product is an alternative solution as it is orientated strand board.

1.1 RELATED WORK

Refer to ~ for ~

The section(s) stated above are often necessary to support this section, consider carefully and ensure they are included in the project specification if required.

Include cross references only to other work sections where they include directly related work.

1.2 ABBREVIATIONS AND DEFINITIONS

Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

| | |
|---|---|
| ~ | ~ |
|---|---|

The following definitions apply specifically to this section:

| | |
|---|---|
| ~ | ~ |
|---|---|

Delete abbreviations or definitions that are not used.

Documents

1.3 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

| | |
|---------------|---|
| NZBC B1/AS1 | Structure |
| NZBC B2/AS1 | Durability |
| NZBC F2/VM1 | Hazardous building materials |
| AS/NZS 1860.1 | Particleboard flooring - Specifications |
| NZS 3602 | Timber and wood-based products for use in building |
| NZS 3604 | Timber-framed buildings |
| EN 300:2006 | Orientated strand boards (OSB). Definitions, classifications and specifications |
| EN 13501-1 | Fire classification of construction products and building elements. Classification using test data from reaction to fire tests |

Delete from the DOCUMENTS clause any document not cited. List any additional cited documents.

The following are related documents and if referred to in the work section need to be added to the list of DOCUMENTS.

| | |
|--------------|--|
| NZBC C/AS1 | Protection from fire |
| NZBC C/AS2 | Protection from fire |
| NZBC E3/AS1 | Internal moisture |
| NZBC E3/AS2 | Internal Moisture - Internal Wet-area Membrane Systems |
| AS/NZS 1170 | Structural design actions (set) |
| NZS 1170.5 | Structural design actions - Earthquake actions - New Zealand |
| ISO 9239.1 | Reaction to fire tests for flooring. Part 1 Determination of the burning behaviour using a radiant heat source |
| BRANZ BU 628 | Sheet flooring |
| BRANZ BU 519 | Fasteners selection |
| IWAM CoP | Code of Practice for Internal Wet-area Membrane Systems |

1.4 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer and supplier documents relating to this part of the work:

- IBS EUROFloor Installation Guide
- IBS EUROFloor Maintenance & Warranty (May 2020 V1)
- IBS EUROFloor Product Specification
- IBS EUROFloor PASS V1 (Product Assurance Supplier Statement)
- IBS EUROFloor Design & Installation Guide (Jun 2020 V1)
- CodeMark™ Product Certificate CM70089

List documents relating to this part of the work, i.e. technical product/system specifications, test reports, appraisals, certification, etc. Normally they will be referred to in the text by the abbreviated title.

Manufacturer/supplier contact details:

Company: Independent Building Supplies Limited
 Web: www.ibs.co.nz
 Email: info@ibs.co.nz
 Telephone: 0800 367 759

It is important to ensure that all personnel on site have access to accurate, up to date technical information on the many products, materials and equipment used on a project. In most cases individual products are not used in isolation, but form part of a building process. Also a particular manufacturer and/or supplier requirements for handling, storage, preparation, installation, finishing and protection of their product can vary from what might be considered the norm. Access to technical information can help overcome this potential problem.

Warranties

1.5 WARRANTY

Provide warranty for:

| | |
|---------|-------|
| ~ years | For ~ |
|---------|-------|

- Provide this warranty on the manufacturer/supplier standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Modify or expand the clause to suit project requirements, options include:

- *Modify the form to be used*
- *Commence the warranty from the date of completion of this part of the contract work*

1.6 WARRANTY - MANUFACTURER/SUPPLIER

Provide a material manufacturer/supplier warranty:

| | |
|----------|-------------------|
| 15 years | For IBS EUROFloor |
|----------|-------------------|

- Provide this warranty on the manufacturer/supplier standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Modify or expand the clause to suit project or manufacturer/supplier requirements, options include:

- *Modify the form to be used*
- *Commence the warranty from the date of purchase (check with the manufacturer/supplier)*

1.7 WARRANTY - INSTALLER/APPLICATOR

Provide an installer/applicator warranty:

| | |
|---------|-------|
| ~ years | For ~ |
|---------|-------|

- Provide this warranty on the installer/applicator standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Modify or expand the clause to suit project or installer/applicator requirements, options include:

- *Modify the form to be used*
- *Commence the warranty from the date of installation (check with the installer/applicator)*

Requirements

1.8 QUALIFICATIONS GENERALLY

Refer to 1270 CONSTRUCTION for requirements relating to qualifications.

1.9 QUALIFICATIONS WORKERS - MANUFACTURER / SUPPLIER REQUIREMENTS

Installers to be experienced, competent trades people familiar with the materials and techniques specified. Refer to 1270 CONSTRUCTION for additional requirements relating to qualifications.

This clause includes generic text which should be expanded only if there are specific qualification requirements.

1.10 ACCEPTABLE PRODUCT/MATERIAL SUPPLIERS

Where a product or material supplier is named in SELECTIONS, the product/material must be provided by the named supplier. Where more than one named supplier, any one of the named suppliers will be acceptable.

This clause is used to nominate a supplier or suppliers to supply materials. It is not intended for nominating subcontractors which must be done in the specific conditions of contract applying to the work. Check with BCA for acceptability of multiple selection options.

1.11 NO SUBSTITUTIONS

Substitutions are not permitted to any of the specified systems, components and associated products listed in this section.

1.12 SAMPLES

Refer to the general section 1270 CONSTRUCTION for details of how samples will be reviewed and how instructions to proceed will be given. Provide the following samples for review:

| | Sample A | Sample B | Sample C |
|---------------------------|-------------------------|-------------------------|-------------------------|
| Sample description: | ~ | ~ | ~ |
| Sample type: | ~ | ~ | ~ |
| Number: | ~ | ~ | ~ |
| Location: | ~ | ~ | ~ |
| Supporting documentation: | ~ | ~ | ~ |
| Reviewer: | Contract administrator~ | Contract administrator~ | Contract administrator~ |
| Time for review: | 10 working days ~ | 10 working days ~ | 10 working days ~ |
| Review criteria: | ~ | ~ | ~ |

The intention of this clause is to allow samples to be obtained that are not otherwise readily available to a reviewer.

Delete rows and columns not required or add "n/a".

| | |
|----------------------------------|--|
| <i>Sample description:</i> | <i>Describe the sample, size etc.</i> |
| <i>Sample type:</i> | <i>Portable sample for review Portable control sample Fixed sample for review Fixed control sample Control samples define requirements for type and quality and are used for comparison purposes throughout the contract. A "portable" sample is a sample that is easily movable, convenient for carrying. A "fixed" sample is a sample (semi) permanently placed. Expand on these terms as necessary.</i> |
| <i>Number:</i> | <i>State number of samples required, e.g. a minimum of three control samples - portable allow a sample to be retained on site with the other samples retained by the contract administrator and contractor.</i> |
| <i>Location:</i> | <i>Identify location of fixed samples, e.g. off site, on site, in situ</i> |
| <i>Supporting documentation:</i> | <i>Describe any additional documents required to support the review.</i> |
| <i>Reviewer:</i> | <i>Modify to suit the project, add additional reviewers if required.</i> |
| <i>Time for review:</i> | <i>Alter time if required. Expand to state timing in relation to when and where the sample is provided, e.g. at first site meeting.</i> |
| <i>Review criteria:</i> | <i>For example: - Appearance - Texture - Colour</i> |

1.13 AS BUILT DOCUMENTS

Refer to the general section 1238 AS BUILT DOCUMENTATION for the requirements for submission and review of as built documents and records.

Provide the following as built documents and records:

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- Provide draft as built information prior to practical completion.
- Provide final as built information prior to the end of the defects liability period.

The general section 1238 AS BUILT DOCUMENTATION describes the process of submission and review of as built documentation. Use this clause to describe the specific requirements of what the required as built documents are to include.

1.14 INFORMATION FOR OPERATION AND MAINTENANCE

Refer to the general section 1239 OPERATION & MAINTENANCE for provision of the following general operation and maintenance information as electronic PDF format documents:

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Use this clause to list requirements of information that is required but which does not warrant a separate specialist operation and maintenance manual. Amend the clause if hard copy documents are required.

Provide this information prior to practical completion.

The general section 1239 OPERATION & MAINTENANCE describes the process of submission and review of operation and maintenance information. Use this clause to describe the specific requirements, the required information and what it is to cover.

1.15 OPERATION AND MAINTENANCE MANUALS

Refer to the general section 1239 OPERATION & MAINTENANCE for the requirements for submission and review of operation and maintenance manuals.

Provide the following operation and maintenance manual(s):

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Include the following in the operation and maintenance manual(s):

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The general section 1239 OPERATION & MAINTENANCE describes the process of submission and review of operation and maintenance manuals. Use this clause to describe the specific requirements, the required manuals and what they are to include.

Compliance information

1.16 INFORMATION REQUIRED FOR CODE COMPLIANCE

Provide the following compliance documentation: -

- Applicators approval certificate from the manufacturer / importer / distributor
- Manufacturer / supplier warranty
- Installer / applicator warranty
- Producer Statement - Construction from the applicator / installer
- Producer Statement - Construction Review from an acceptable suitably qualified person
- Other information required by the BCA in the Building Consent Approval documents.

List the Producer Statements - Construction (PS3) required from installers that are required as a condition of carrying out this work.

List also Producer Statements - Construction Review (PS4) required from consultants to be engaged by the Contractor.

Producer Statement - Design (PS1), may be required where certain design work is undertaken by the Contractor or manufacturer / importer / distributor.

Performance - General

1.17 SURFACE FIRE PERFORMANCE - UNFINISHED FLOORING

Unfinished IBS EUROFloor has a reaction to fire performance to EN13501-1 of Class D-s2 d0.

NOTE: For most internal applications a surface fire performance Group Number will be required to NZBC C/AS2, Table 4.3 (services to table 4.4). If the Group number is established from NZBC C/AS2, Appendix C, Table C1.2, modify the clause. C/AS2, Table C1.1 provides equivalences between European Classifications and ISO Group Numbers.

A Group Number may not be required in situations, such as small areas of non-conforming product within a firecell having a total aggregate surface area of less than 5m² (NZBC C NZBC C/AS2, 4.17.6.a). Therefore, separate surfaces in addition to this product may need to be considered in order to determine the aggregate area.

Delete this clause for houses and similar residential projects under NZBC C/AS1 risk group SH (as it does not apply).

Flexible floor coverings such as carpets, vinyl sheet or tiles and finished or unfinished floor surfaces, to be either non-combustible or when tested to ISO 9239-1 have a critical radiant flux of not less than that specified in NZBC C/AS2 Table 4.5.

Quality control and assurance

1.18 INSPECTIONS

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Use this clause for parts of the work where;

Special arrangements are required for notification for inspections.

These inspections may include 'Hold Points' or 'Notification Points'. Refer to 1232 INTERPRETATION & DEFINITIONS for complete definitions.

Hold Point: Work may not proceed until the work in question has been inspected.

Notification Point: notify Contract Administrator, work may be observed or not, work may proceed.

or

the manufacturer/supplier is required to carry out inspections outside their normal activities and provide reports or other documents in support of the work carried out.

or

the Contractor is required to carry out or engage consultants to carry out inspections of parts of the work. It will typically be expected that the person carrying out the inspections will be required to provide producer statements in support of the work carried out.

2 PRODUCTS

Materials

Note: For large floor areas exceeding 15 metres in any direction, contact IBS for expansion details or specify post laying, i.e. no exposure to weather.

For floors exceeding 3 kPa loading, specific design is required. Consideration must be given to all likely point load situations (e.g. pianos, snooker tables and the like).

For clear finished floors, specify all panels from the same batch - for a quality finish, post lay the panels.

2.1 IBS EUROFLOOR

20 mm thick, 3 layered, flat pressed flooring panel of orientated strands (micro veneers) bonded with synthetic resin to AS/NZS 1860.1, and EN 300. Long edges are tongue-and-grooved. Panels are 100% formaldehyde free resin bonded.

Sheet size: 3600 mm x 1200 mm x 20 mm

Normally used with joists at 400 mm, 450 mm or 600 mm centres max. Refer to IBS Design & Installation Guide for maximum spans and loads. Where design is outside the scope of NZS 3604 or NASH Design Standard for light gauge steel framing, design the floor to AS/NZS 1170

IBS EUROFloor is suitable for use in wet areas including bathrooms, laundries and showers, provided it is fully protected by a waterproof membrane.

Components

2.2 FIXINGS - IBS EUROFLOOR

Nail and screw fixings to AS/NZS 1860.2.

| | Fastener type | Minimum fastener size | Fixing centres - edges | Fixing centres - intermediates |
|----------------|---|-----------------------|------------------------|--------------------------------|
| Timber joists: | Annular grooved timber flooring nails | 60 mm | 150 mm | 200 mm |
| | Galvanized jolt head nails | 60 mm | 150 mm | 200 mm |
| | Corrosion- resistant self-drilling screws | 8 gauge x 45 mm | 150 mm | 200 mm |
| Steel joists: | Tek corrosion- resistant self-drilling screws | 10 gauge x 45 mm | 150 mm | 200 mm |

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.

2.3 ADHESIVE

Elastomeric construction adhesive or foaming polyurethane adhesive.

Contact IBS for adhesive recommendations.

3 EXECUTION

Conditions

3.1 DELIVERY, STORAGE AND HANDLING OF PRODUCTS

Refer to 1270 CONSTRUCTION for general requirements relating to delivery, storage and handling of products.

Remove strapping and shrink wrap immediately upon arrival at the installer's storage area or on site, to reduce the stress on the panels, and store them flat.

Limit the time the panels are stored outside, however when stored outside:

- Keep away from water or vegetation
- Store panels horizontally on squared bearers or gluts, at 700 mm centres maximum. Do not store directly on the ground
- Keep them raised off the ground with at least 5 supports on the ground
- Cover the panels with waterproof coverings to protect from direct exposure to the weather, but allow for ventilation
- The maximum exposure to weather must not exceed 90 days.

Reject and replace goods that are damaged or will not provide the required finish.

Provide a 48 hour acclimatisation period to adjust to site conditions.

The general section 1270 CONSTRUCTION describes how deliveries are to be managed and the goods stored. Where IBS EUROFloor is exposed to excess moisture, mechanical sanding may be required if swelling has occurred at the panel joints.

3.2 ROUTINE MATTERS

Refer to 1250 TEMPORARY WORKS & SERVICES for protection requirements.

Refer to 1270 CONSTRUCTION for requirements relating to defective or damaged work, removal of protection and cleaning.

Use this standard generic clause and if appropriate add additional special requirements.

3.3 PRE-INSTALLATION REQUIREMENTS

Check work previously carried out and confirm it is of the required standard for this part of the work.

Moisture content: 18% maximum

3.4 FLOOR FRAMING

Kiln dried timber framing sizes and set outs to [NZS 3604](#) with joist centres and timber widths to EUROFloor Installation and Specification Brochures. Treatment to [NZBC B2/AS1](#) and [NZS 3602](#).

Installation

3.5 STANDARDS AND TOLERANCES

Refer to the general section 1270 CONSTRUCTION for general requirements.

Amend this clause to describe specific standards and tolerances to be achieved in carrying out this part of the work. Although such tolerances are typically included in standards (NZS, AS/NZS etc) in certain circumstances it is worth restating these in this clause.

3.6 HEIGHT ABOVE GROUND

Install IBS EUROFloor with a minimum clearance of 550mm from ground level.

3.7 SUPPORT EDGES AND JOINTS

Fully support edges and joints to EUROFloor Installation and Specification Brochures.

3.8 FIXING IBS EUROFLOOR - GENERALLY

Fix in accordance with EUROFloor Installation Brochure on joists at 600 mm centres maximum. Place the panels with the surface displaying span information and nail grid face up. Lay panels in a staggered pattern across the joists, cross joints are not permitted. Individual panel lengths should cover at least three floor joist spacings. Provide 10 mm expansion gap between panel edges and wall frames, or existing wall surfaces where retrofitted. Cut edges to be sealed with water-based polyurethane sealant.

3.9 NAIL FIXING

Fix in accordance with EUROFloor Installation and Specification Brochures. Nail panel ends at 150 mm centres 15 mm from the square edge. Nail intermediates at maximum 300 mm centres, with all nails slightly skewed except for corner vertical nails. Nails must be 25 mm from tongue and groove edges.

3.10 SCREW FIXING

Fix in accordance with EUROFloor Installation and Specification Brochures. Screw panel ends at 150 mm centres 15 mm from the square edge. Screw intermediate support at maximum 300 mm centres. Screws must be 25 mm from tongue and groove edges. Pre-drill for screw fixing.

3.11 ADHESIVE FIXING

Fix in accordance with EUROFloor Installation and Specification Brochures, and adhesive manufacturer's installation guide. Apply 5mm bead of construction grade adhesive to top of joists. Surfaces must be clean and dry. Apply adhesive to the upper surface of joist members prior to sheet placement. Nail or screw flooring to joists within 15 minutes of positioning sheets. Remove excess adhesive.
Note: When laying IBS EUROFloor onto steel joists, ensure the selected adhesive is suitable for bonding wood to steel.

3.12 EXPANSION GAPS

Leave expansion gaps where boards adjoin other structures. Surfaces exceeding 10 m in any dimension to have at least one expansion joint of 10 mm width per 10 m of floor, spaced evenly across the floor.

3.13 FINISHING

Do not leave IBS EUROFloor in its raw state. Seal the floor with a polyurethane system, or overlay with an appropriate protective covering such as:

- Prima Ceramic Tile underlay for tiles
- Proprietary membrane system compatible with composite timber, carpet or solid timber flooring overlay.

If the IBS EUROFloor is to be finished with a clear finish after the construction period, protect the boards against soiling, damage and wear during the construction period. Sand the boards prior to polyurethane system being applied. Limit sanding as much as possible and to a maximum of 2mm off the face of the board. Modify clause to suit project requirements.

Completion & Commissioning

3.14 COMPLETION MATTERS

Refer to 1270 CONSTRUCTION for completion requirements and if required commissioning requirements.

Use this standard generic clause and if appropriate add additional special requirements.

3.15 SURFACE FINISHING

Tighten fixings; punch nails and tighten screws prior to sanding.

| | |
|------------------|---------|
| General sanding: | 80 grit |
| Heavy sanding: | 60 grit |

| | |
|----------------|----------|
| Clear coating: | 100 grit |
| Paint: | 100 grit |

Follow coating manufacturers' instructions.

Delete this clause if not required.

3.16 FINAL INSPECTION AND TESTING

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3.17 HANDOVER

~

4 SELECTIONS

For further details on selections go to www.ibs.co.nz

Substitutions are not permitted to the following, unless stated otherwise.

If substitutions are permitted modify the statement above, ensure the NO SUBSTITUTIONS clause from GENERAL is treated the same.

Select the options to suit the project and delete options not specified.

Performance

4.1 SURFACE FIRE PROPERTIES

| Group Number | Panel/Finish | Location |
|--------------|--------------|----------|
| ~ | ~ | ~ |

Add Fire Test Report details if necessary.

If the Group number is established from NZBC C/AS2, Appendix C, Table C1.2, add to clause.

Delete clause if not required. A Group number may not be required in situations such as, the surface area is less than 5m² (NZBC C NZBC C/AS2, 4.17.6.a), or the design is to NZBC C/AS1 risk group SH (houses etc).

Select the options to suit the project and delete options not specified.

Materials

4.2 IBS EUROFLOOR

| | |
|---------------|-------------------|
| Location: | ~ |
| Manufacturer: | IBS EUROFLOOR |
| Thickness: | 20 mm |
| Sheet size: | 3600 mm x 1200 mm |
| Finish: | ~ |

Finish: Carpet, vinyl, tiles (with underlay), composite timber flooring, hardwood flooring, clear coating

4.3 FASTENERS

| | |
|---------------------|---|
| Type/size/material: | ~ |
| Fastening method: | ~ |

| Fastening method | Joist material | Fastener type | Minimum fastener size |
|-------------------|--------------------------|---|-----------------------|
| Manual nailing | hardwood or cypress pine | bullet, jolt or flat lead nails | 60mm x 2.8mm |
| | softwoods | bullet, jolt or flat lead nails | 65mm x 3.75mm |
| Pneumatic nailing | All timbers | T or finished head nails | 65mm x 2.8mm |
| Screw fixing | All timbers | Countersunk head, self drilling screws | No.10 x 50mm |
| | Steel | Countersunk, self embedding head, self drilling screws preferably with self breaking cutter nib | No.9 or No. 10 x 45mm |

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.

Refer to NZS 3604 section 4 for fastener durability. Where stainless steel nails are required used annular grooved nails.

4.4 ADHESIVE

Brand: ~

Type: ~

Type: Elastomeric construction adhesive or foaming polyurethane adhesive.

Brand: Sika Nail Bond Premium

Holdfast Gorilla Grip

Bostik Alpha Grip

Selleys Liquid Nails

4.5 CONSTRUCTION METHOD

Method: ~

Options: Platform method - sheet edge to perimeter of building with all wall plates on top of sheet.

Fitted floor method - sheets fitted between wall plates.

Note: Co-ordinate method with the appropriate timber framing section.

Spares & maintenance products

4.6 SPARES & MAINTENANCE PRODUCTS

Refer to the general section 1270 CONSTRUCTION for details of how spares and maintenance products will be handled. Provide the following spares and maintenance products:

| | |
|-----------|----------------------------|
| Item: | ~ |
| Quantity: | ~ |
| Location: | Refer to 1270 CONSTRUCTION |

| | |
|------------------|--|
| <i>Location:</i> | <i>If a common storage location has not been nominated in 1270 CONSTRUCTION, or is not suitable for this item, then nominate a specific location or delivery instructions.</i> |
|------------------|--|

