

Karelia Prefinished Timber Flooring

*This section deals with the supply, laying and finishing of **Karelia** prefinished timber as an overlay, including underlays over the existing substrate.*

GUIDANCE NOTE

*A wide range of timber overlay floors are available. Carefully read the **Karelia** Guide and specify accordingly or access their website: www.karelia.co.nz or www.kareliaparketti.com.*

1. GENERAL

Related work

1.1 RELATED SECTIONS

Refer to ~ for ~.

GUIDANCE NOTE

Include cross references to other sections where these contain related work.

Documents

1.2 DOCUMENTS REFERRED TO

Documents referred to in this section are:

NZBC	D1/AS1, Access routes, 2.1 Slip resistance
AS 1859	Reconstituted wood-based panels 1859.4: Hardboard
AS/NZS 1860	Particleboard flooring 1860.1: Specifications
AS/NZS 2269	Plywood - Structural
AS/NZS 3661	Slip resistance of pedestrian surfaces 3661.1: Requirements

BRANZ Bulletin 330: Thin flooring materials - 2 Preparation and laying

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

GUIDANCE NOTE

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

RELATED DOCUMENTS

Refer to the following related documents when preparing this section:

NZBC	D1/VM1	Access routes
AS/NZS 3661	Slip resistance of pedestrian surfaces	3661.2 Guide to the reduction of slip hazards
AS/NZS 4586	Slip resistance of new pedestrian surfaces	

BRANZ Bulletin 316: Timber strip flooring and internal linings

BRANZ Bulletin 343: Moisture in timber

BRANZ Bulletin 356: Adhesives for use with wood and wood-based products

BRANZ Bulletin 370: Slip resistance of floors

BRANZ Bulletin 373: Specifying timber

BRANZ Bulletin 374: Laying timber strip flooring over concrete floor slabs

BRANZ Bulletin 379: Preventing moisture problems in existing buildings

BRANZ Bulletin 418: Providing for thermal and moisture movement

BRANZ Bulletin 424: Measuring moisture on building sites

1.3 MANUFACTURER'S DOCUMENTS

Karelia and supplier's documents relating to work in this section are:

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Copies of the above literature can be obtained by contacting **Quality Floors Limited** on phone 09-443-0747, fax 09-443-0748 or email welcome@karelia.co.nz.

GUIDANCE NOTE

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's and/or supplier's 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.

Requirements

1.4 SAMPLES

Submit on request samples of the flooring specified sufficient to show the pattern and the range of colour finish.

1.5 QUALIFICATIONS

Floor layers to be experienced competent workers, familiar with the materials and the techniques specified.

1.6 HEALTH AND SAFETY

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GUIDANCE NOTE

Consider adding a special clause where volatile or potentially dangerous adhesives and/or coatings are involved.

Guarantees

1.7 WARRANTY

Warrant this work under normal residential use conditions against failure:

Karelia timber flooring warranty period: 30 year warranty in New Zealand
From: Date of installation

For any other work please contact **Quality Floors Limited** on phone 09-443-0747, fax 09-443-0748 or email welcome@karelia.co.nz.

GUIDANCE NOTE

Check PRELIMINARIES AND GENERAL for the date of commencement of warranties; which is normally practical completion of the contract. Refer to the chosen conditions of contract as it may also contain information on warranties/guarantees.

Performance

GUIDANCE NOTE

As suppliers of timber overlay floors are unlikely to recommend their product's use in "wet" areas, the requirement to test the slip resistance of a timber floor would only apply to public spaces and accessways. Note also that the testing requirement applies to the finished floor surface (i.e. after coating if the flooring is not pre-finished).

1.8 SLIP RESISTANCE

To comply with NZBC acceptable solution D1/AS1, clause 2.1.

Sheet and tiles, when in place on a level access route, to have a mean coefficient of friction not less than 0.4 when tested in accordance with AS/NZS 3661.1, appendix A and B.

Sheet and tiles, when in place on a sloping access route, to have a coefficient of friction of not less than 0.4 x 0.0125S (where S is the slope of the walking surface expressed as a percentage).

- 1.9 CERTIFICATES
Provide certificates and any other evidence that the flooring will comply with the standard of performance specified.
GUIDANCE NOTE
Always ask for certification whether specifying by performance or not. Use the following clause if not specifying by performance.
- 1.10 CERTIFICATES, SLIP RESISTANCE
Provide certificates and any other evidence at the time of selection/supply that the completed flooring work will comply with NZBC acceptable solution D1/AS1.
- 1.11 TESTING
Sample and test the substrate to BRANZ Bulletin 330 to ensure that moisture content is within the limits specified. Provide a written record.
GUIDANCE NOTE
Refer to limits set out under 3. EXECUTION, for the various circumstances that might apply.
- 2. PRODUCTS**
- Materials**
- 2.1 CONSTRUCTION PLYWOOD UNDERLAY
Rotary cut radiata pine veneer ply, face sanded, treated H1 and to AS/NZS 2269.
- 2.2 HARDBOARD UNDERLAY
High density standard hardboard sheet to AS 1859.4.
GUIDANCE NOTE
Do not use tempered hardboard as it can cause problems with some flooring adhesives. Modify this clause and the later INSTALLING HARDBOARD UNDERLAY if specifying a particle board or MDF underlay.
- 2.3 HIGH MOISTURE RESISTANCE UNDERLAY
HMR melamine-urea formaldehyde resin bonded particle board to AS/NZS 1860.1.
GUIDANCE NOTE
This product has a higher resistance to moisture than standard particle board. It will however deteriorate in the same manner as standard particle board. It is usually distinguished from standard board by a green ink mark.
- 2.4 FOAM UNDERLAY
Underlay to provide a moisture barrier.
GUIDANCE NOTE
Floating installations only.
- 2.5 ACOUSTIC UNDERLAY
Minimal thickness sound control system to isolate impact noise.
Manufacturer: Roberts
Type: Harmony
- 2.6 **Karelia** PREFINISHED TIMBER FLOORING
Refer to 4. SCHEDULES
- 2.7 TIMBER TRIM
Skirting, edge strip, reducer strip and nosing as detailed and to match overlay flooring.
GUIDANCE NOTE
Depending on height variations experienced between existing and new floor coverings, either a standard proprietary trim could be used, or a custom made trim will need to be fabricated.

Accessories

- 2.8 FOAM UNDERLAY TAPE
Moisture resistant tape, 48 mm wide.
- 2.9 CONCRETE SEALER
Two part water based epoxy coating.
- 2.10 ADHESIVE, DIRECT STICK
Karelia recommended adhesive
GUIDANCE NOTE
PVA-based adhesives should not be used.

Finishes

- 2.11 Lacquer finish
- 2.12 Oil/wax finish

3. EXECUTION

Conditions

- 3.1 STORAGE AND HANDLING
Accept cartons and packs of timber and accessories undamaged and dry. Store on level, dry surfaces in non-traffic, non-work areas that are enclosed and dry. Avoid damage to cartons and packs of timber. Do not use damaged timber.
- 3.2 CHECK TIMBER
Check that the timber supplied is as specified. Check the moisture content of the timber to ensure it is at the required level for the installation environment.
- Check flooring to ensure it has been supplied at the moisture content recommended by **Karelia** for the proposed location. Do not remove flooring from packs until just prior to installation.
- 3.3 DO NOT START
Do not start laying before the building is enclosed, doors are hung and lockable, wet work complete, full lighting available and in the case of air-conditioned buildings the air-conditioning operating for 6 weeks.
- 3.4 INSPECT THE SUBSTRATE
Inspect the substrate to ensure it provides a suitable finish. Do not start laying if the substrate will not allow work of the required standard.
- 3.5 STARTING WORK
Starting work means the floor layer accepts the substrate as allowing work of the required standard.
- 3.6 **Karelia** REQUIREMENTS
Carry out the work to conform with this specification and in accordance with **Karelia** technical requirements.
- 3.7 TECHNIQUE DISCUSSION
Before beginning the installation, confirm the proposed layout of the timber, grain direction, any other visual considerations of the finished work and specified expansion requirements relating to the specified product.
- GUIDANCE NOTE*
Add more detail here, especially if bordered or patterned work is involved. Some prefinished timbers expand and contract at different rates length-wise compared to cross-wise. Consideration should be given to grain direction in relation to expansion and contraction.

- 3.8 SURFACE TOLERANCES, GLUE DOWN
Substrate to have no deviations greater than 3 mm over a 3 metre straightedge in any given direction.
- 3.9 SURFACE TOLERANCES, FLOATING
Substrate to have no deviations greater than 3 mm over a 3 metre straightedge in any given direction.
- 3.10 MOISTURE CONTENT, TIMBER SUBSTRATE
Check for moisture content and do not commence installation until readings for the whole area show a moisture content of:
8 - 12% for air conditioned buildings
10 - 14% for intermittently heated buildings
12 - 16% for unheated buildings
GUIDANCE NOTE
*Parquet floors require lower moisture content than listed above. Refer to 4. SCHEDULES or to **Quality Floors Limited** for details.*
- 3.11 MOISTURE CONCRETE, NEW CONCRETE
Clear substrate of debris, clean off surface contamination and carry out surface repairs using a proprietary levelling compound. Carefully feather out at perimeters of repaired areas. Grind level, then vacuum to remove dust. Check for moisture content by hygrometer to BRANZ Bulletin 330. Do not commence installation until the hygrometer readings show 75% or less. Refer to allowable surface tolerances.
- 3.12 MOISTURE CONTENT, EXISTING CONCRETE, DIRECT STICK
Strip off existing floor coverings. Check for moisture content by hygrometer to BRANZ Bulletin 330. Do not commence installation until the hygrometer readings show 75% or less. Refer to allowable surface tolerances.
- 3.13 UNDERFLOOR HEATING, FLOATING APPLICATIONS ONLY
Always contact Quality Floors Limited on phone 09-443-0747, fax 09-443-0748 or email welcome@karelia.co.nz for technical advice.
- 3.14 ON-FLOOR HEATING, FLOATING APPLICATIONS
Check with the supplier of the on-floor heating. Floating installations may be installed directly over cables and elements when approved in writing by the on-floor heating and flooring suppliers.
GUIDANCE NOTE
Although floating floors can be installed directly over on-floor heating, a certain amount of heat transference is lost, owing to the elements not being totally encapsulated. It is recommended that the on-floor heating be totally covered using a self levelling compound suitable for this type of application.
- Application - surface preparation**
- 3.15 SEAL CONCRETE
Apply concrete sealer before commencing flooring installation.
GUIDANCE NOTE
In many installations, a sealer coat may not be required if the concrete has dried to the required moisture content. However specifiers may wish to adopt a prudent approach and require a sealer coat. Others may be prepared to leave a decision on this matter to the flooring installer.
- 3.16 EXISTING CONCRETE, FLOATING
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GUIDANCE NOTE
Timber overlay floors can be installed over virtually any existing hard floor coverings and even over some direct stick, low level loop pile, or needle punch carpets. Refer to allowable surface tolerances and check with the overlay flooring supplier before specifying.

- 3.17 PREPARATION, NEW PLYWOOD OR PARTICLE BOARD, DIRECT STICK
Clear substrate of debris, machine sand to remove surface contamination, then vacuum to remove dust. Refer to allowable surface tolerances.
- 3.18 PREPARATION, NEW PLYWOOD OR PARTICLE BOARD, FLOATING
Clear substrate of debris, machine sand to make level. Refer to allowable surface tolerances
- 3.19 PREPARATION, EXISTING TONGUE AND GROOVE, DIRECT STICK
Clear substrate of debris, re-nail or replace any loose or missing boards, then machine stand to make level. Refer to allowable surface tolerances.
- 3.20 PREPARATION, EXISTING TONGUE AND GROOVE, FLOATING
Clear substrate of debris, re-nail or replace any loose or missing boards, then machine sand to make level. Refer to allowable surface tolerances.

Application - floor underlays

- 3.21 INSTALLING PLYWOOD UNDERLAYS
Lay plywood sheets with joints staggered, with a 1 mm gap between sheets and 2 mm at perimeters. Use 18 mm divergent staples at 100 mm centres throughout the whole sheet and 30 mm apart, 18 mm in from the edges of the sheets. Punch staples below the surface and sand joints level.
- 3.22 INSTALLING HARDBOARD UNDERLAYS
Lay standard hardboard, with joints staggered, with a 1 mm gap between sheets and 2 mm at perimeters. Use 18 mm divergent staples at 100 mm centres throughout the whole sheet, 30 mm apart, 18 mm in from the edges of the sheets. Punch staples below the surface and sand joints level.
- 3.23 ACOUSTIC UNDERLAY
Place acoustic underlay strip around the base of walls, columns and any vertical fixtures. Install the underlay as required by the underlay manufacturer.

Application - installation

- 3.24 LAYING, DIRECT STICK
Apply adhesive at the required spread rate. Follow requirements for open time, taking note of substrate porosity, ambient temperature and relative humidity. Remove excess adhesive as the work proceeds using approved techniques. Install the flooring strictly in accordance with **Karelia** stated requirements. Ensure the required expansion gap is left at perimeters and around fixed obstacles.
GUIDANCE NOTE
*Check **Karelia** technical literature and modify this clause accordingly. An expansion gap of at least 10 mm should be provided.*
- 3.25 LAYING, FLOATING
Install moisture barrier to the total floor area, in long, continuous runs, allowing to cove up walls by 50 mm. Tape joints using moisture resistant tape, to create an impervious membrane. Install the timber floor strictly in accordance with the flooring supplier's stated requirements. Ensure the required expansion gap is left at perimeters and around fixed obstacles.
GUIDANCE NOTE
*Check **Karelia** technical literature and modify this clause accordingly. An expansion gap of at least 10 mm should be provided.*
- 3.26 LAYING, STAIRCASES AND LANDINGS
Check for moisture content and suitability of substrate prior to installation. Adhesive fix flooring to stair treads, risers and landings.

- 3.27 EXPANSION GAPS, PERIMETERS
Calculate expansion gaps strictly in accordance with **Karelia** stated requirements, to suit the environment, size of the installation and product type.
GUIDANCE NOTE
Expansion gaps for floating floors can be covered by placing the skirtings on after the timber installation, or by using a small timber bead of sufficient size to cover the expansion gap. The skirting/moulding must be installed in a manner which ensures it does not sit hard down on the timber floor. Otherwise it will restrict natural expansion and contraction, resulting in either creaking, buckling, or cracking of the floor.

- 3.28 EXPANSION JOINTS
Cover expansion joints using matching expansion joint covers.
GUIDANCE NOTE
*Check with **Quality Floors Limited** regarding the need for in-floor expansion joints.*

Finishing

- 3.29 Lacquer finish, FACTORY PREFINISHED COATED FLOORING
- 3.30 Oil/wax finish, FACTORY PREFINISHED COATED FLOORING
- 3.31 CLEAN
Leave timber flooring surfaces free of adhesive, dirt and debris. Vacuum off, damp mop with a low-foam neutral detergent and allow to dry. Use **Karelia** recommended cleaning products. Do not wet the floor or use abrasive cleaners or wax shines.

Completion

- 3.32 PROTECT FINISHED SURFACE
Ensure that the completed surface is not used for traffic until curing is complete. Continue to protect the surface until completion of the contract works.
- 3.33 REPLACE
Replace damaged or marked elements.
- 3.34 REMOVE
Remove debris, unused materials and elements from the site.
- 3.35 LEAVE
Leave work to the standard required by following procedures.

4. SCHEDULES

- 4.1 CONSTRUCTION PLY UNDERLAY
Grade/type: CpD
Thickness: 17 mm
GUIDANCE NOTE
Suggest grade B-D or CP-D.
- 4.2 HARDBOARD UNDERLAY
Thickness: 6 mm
GUIDANCE NOTE
Suggest minimum thickness of 6 mm.
- 4.3 HIGH MOISTURE RESISTANCE UNDERLAY
Thickness: 12 mm
GUIDANCE NOTE
Suggest minimum thickness of 12 mm.
- 4.4 ACOUSTIC UNDERLAY
Manufacturer: Roberts
Type: Harmony

4.5 Karelia TIMBER FLOORING, LACQUER PREFINISHED

Species:	~
Pattern/design:	~
Thickness:	14 mm
Off site factory finish:	Factory applied lacquer
On site finish:	not required
Moisture content:	7 – 8%

GUIDANCE NOTE

Karelia prefinished timber flooring is available in many species and grades.

Pattern/design options: 1-Strip, 2-Strip, 3-Strip)

4.6 Karelia TIMBER FLOORING, OIL PREFINISHED

Species:	~
Pattern/design:	~
Thickness:	14 mm
Off site factory finish:	Factory applied oil/wax system
Moisture content:	7 – 8%

GUIDANCE NOTE

Karelia prefinished timber flooring is available in many species and grades.

Pattern/design options: 1-Strip, 2-Strip, 3-Strip)