

Part A: Product Overview

1. Product Specifications

Before commencing installation, confirm the product being installed matches the specification below. Both products share the same plank dimensions and wear layer but differ in construction, installation method, and subfloor requirements.

1.1 Rhino Premium Hardfloor - LVT

Product Type	LVT Glue-Down (Extrusion)
Plank Dimensions	228mm x 1800mm x 5mm
Wear Layer	0.5mm - EIR embossed
Finish	Micro bevel / Gloss 3-4% / Anti-bacterial
Installation Method	Full-spread adhesive glue-down
Coverage per Carton	2.052 m ² (5 planks per carton)
Cartons per Pallet	52 cartons / 106.704m ² per pallet
Profile	No locking profile - adhesive bond only
Standard	NZS AS 1884:2013 Resilient Floor Coverings
Warranty	Residential - 30 years; Wear, Water & Stain Resistant; UFH Compatible; Fire Resistant

1.2 Rhino Premium Hardfloor - WPC (12mm Floating)

Product Type	WPC (Waterproof Polymer Core)
Construction	2mm PVC top layer + 8.5mm WPC core + 1.5mm IXPE underlay (10x expansion)
Plank Dimensions	228mm x 1800mm x 12mm
Wear Layer	0.5mm - EIR embossed
Finish	Micro bevel / Gloss 3-4% / Anti-bacterial
Installation Method	UniClic locking profile
Coverage per Carton	1.6416 m ² (4 planks per carton)
Cartons per Pallet	48 cartons / 78.7968m ² per pallet
Integrated Underlay	1.5mm IXPE pre-attached - no separate underlay required
Standard	NZS AS 1884:2013 Resilient Floor Coverings
Warranty	Residential - 30 years; Wear, Water & Stain Resistant; UFH Compatible; Fire Resistant

2. General Pre-Installation Requirements

These requirements apply to both the LVT and WPC products unless otherwise stated.

2.1 Acclimatisation

Acclimatise all planks in the installation area for a minimum of 48 hours prior to installation. Store cartons flat, off the ground, in conditions consistent with normal year-round living conditions. The installation area must be maintained at a temperature between 18–29°C and relative humidity between 35–65% RH for at least 48 hours before, during, and after installation.

IMPORTANT: LVT/WPC is not suitable for installation in unheated spaces, garages, or areas where normal year-round climate-controlled conditions cannot be maintained. Installation in such spaces will void the warranty.

2.2 Layout Planning

Before laying any planks, determine the installation direction and establish working lines.

- Install parallel to the longest outside wall or the primary light source for the most visually appealing result.
- Calculate the room dimensions to determine starting position. Ensure cut planks at both ends of the room are of equal width and no narrower than half a plank width.
- Snap chalk lines to establish a straight working reference line. Check for square using the 3-4-5 triangle method.
- Work 2–3 cartons at a time to blend shade and texture variation across the floor. Rhino Premium Hardfloor is manufactured with natural visual variation — blending from multiple cartons ensures a consistent appearance across the installation.
- Check plank backs and tiles for directional arrows. All arrows must point in the same direction to ensure correct EIR alignment.

2.3 Product Inspection

Inspect all planks before installation. Installer assumes all responsibility for acceptance of flooring installed with visible or manufacturing defects.

- Examine each plank for visible defects prior to laying. Check finish, colour, and texture thoroughly.
- Confirm carton item numbers and lot numbers match. Install from 2–3 cartons simultaneously to minimise shade variation across runs.
- Do not install planks that show defects. Once a plank is installed, it is considered accepted.

3. Subfloor Requirements and Preparation

Subfloor preparation is critical to the performance and longevity of the installation. Rhino Premium Hardfloor does not mask subfloor defects — any irregularity in the substrate will telegraph through to the finished floor surface over time.

NOTE: All subfloor preparation must comply with NZS AS 1884:2013 (Resilient Floor Coverings — Installation Practices) and the New Zealand Building Code (NZBC), in particular Clause E3 (Internal Moisture). All moisture testing must be carried out and results documented in writing prior to installation commencing. The standard reference throughout this section is NZS AS 1884:2013.

3.1 General Subfloor Requirements (Both Products)

The following requirements apply to all substrate types.

- The subfloor must be structurally sound, clean, dry, and free of dirt, dust, grease, old adhesive residue, paint, wax, oil, curing compounds, parting agents, and any surface treatment that could adversely affect adhesion.
- Flatness — two criteria must both be met per NZS AS 1884:2013 Cl. 3.1.1.4: (1) when a 3000mm straightedge is placed at rest on the surface, no part of the surface shall be more than 3mm below the straightedge; and (2) when a 200mm straightedge is placed at any position, no part of the surface shall be below the straightedge (abrupt deviation check).
- Fill all concave imperfections — holes, grooves, and low spots — with a suitable non-shrinking Portland cement-based patching compound. Remove ridges and protrusions by mechanical means (diamond grinding or scarifying). Allow all fill materials to cure fully per the manufacturer's instructions before laying.
- After any mechanical preparation, the subfloor must be cleaned by vacuum cleaning only. Do not dry sweep — sweeping raises dust that settles back onto the surface and compromises adhesion.
- Do not install over existing carpet, cork, cushion vinyl, or any compressible floor covering.
- Subfloor surface temperature must not exceed 28°C during installation and in service (NZS AS 1884:2013 Cl. 4.1.3).
- WPC product installations (12mm UniClic) over all subfloor types require a minimum 100µm polyethylene sheet to be laid across the entire subfloor surface prior to product installation. Sheets must be lapped a minimum of 150mm at all joints. This vapour barrier reduces hydrostatic pressure beneath the floating floor and is mandatory regardless of subfloor substrate. This requirement does not apply to LVT installations.

3.2 Concrete Slabs

3.2.1 General Construction

- Concrete subfloors must be finished to specification and in accordance with good building practice per NZS 3114.
- New concrete subfloors must be constructed to remain free from rising moisture. Where the slab is in contact with fill, hardcore, or the ground, it must be protected from moisture ingress by a continuous impermeable membrane per NZS 3604. Concrete waterproofing additives and curing compounds are not acceptable replacements for a physical vapour membrane.
- Concrete must be fully cured and dried sufficiently before installation proceeds. As a general guide this requires a minimum of 90 days, but the dryness of the slab must be confirmed by testing (see 3.2.2) — age alone is not sufficient.

3.2.2 Moisture testing — concrete (NZS AS 1884:2013 Appendix A — Normative)

Moisture testing of concrete subfloors is mandatory before any subfloor preparation or floor covering installation commences. The Hygrometer method is the required primary test under NZS AS 1884:2013.

- Method: Calibrated Hygrometer — on-slab (hood) method or in-slab (drilled plug) method per NZS AS 1884:2013 Appendix A2.2. The measurement device must be left undisturbed for 16–24 hours to allow the sealed air cavity to reach equilibrium with the slab. All instruments must be calibrated regularly per the manufacturer's instructions.
- Test points: A minimum of 2 test points must be used simultaneously for the first 50m² of floor area, plus at least 1 additional test point for each additional 100m². Test points must be distributed to cover representative areas - typically one in the centre and others around the perimeter, not closer than 1.5m from any exterior wall.
- Reading time: Hygrometer readings must be taken prior to 10am to limit the effect of higher ambient temperatures that occur later in the day, which can result in artificially low RH readings.
- Acceptable result: The maximum acceptable relative humidity for any concrete substrate receiving resilient flooring is 75% RH or less (NZS AS 1884:2013 Appendix A2.2). This threshold applies to both the LVT Dryback and WPC Floating products.
- Where air conditioning has been operating, it must be turned off 48 hours prior to placing Hygrometer testing equipment to avoid artificially drying the upper portion of the slab.

NOTE: The calcium chloride or copper sulphate test method (NZS AS 1884:2013 Appendix A2.5) should only be used where considerable prior experience has been gained with the method. It is not the primary required test. If used, conduct a minimum of 3 tests for areas up to 100m², plus 1 additional test per additional 100m².

3.2.3 Moisture testing recording (NZS AS 1884:2013 Appendix A3 — required)

Written records of all moisture test results must be retained. Records must capture:

- Physical address of the substrate tested.
- Type of substrate tested.
- Testing regime and instrument used (including make, model, serial number, and last calibration date).
- Date and time measurements were taken.
- Location of each test point (attach a building plan where possible).
- Results from each test point.
- Ambient air temperature and relative humidity at time of testing.

3.2.4 pH testing — concrete (NZS AS 1884:2013 Appendix B — Informative)

pH testing of concrete is informative under NZS AS 1884:2013 and is not mandatory unless specifically required by the flooring material or adhesive manufacturer.

- Concrete subfloors are considered suitable when the measured pH does not exceed 10, or as specified by the adhesive manufacturer (NZS AS 1884:2013 Appendix B2).
- A minimum of 2 tests must be performed for the first 50m², plus at least 1 additional test for each additional 100m².
- Test using pH test papers with a reference colour chart or a calibrated pH meter and distilled water. The concrete surface must be mechanically prepared to remove contaminants and burnishing before testing, then vacuumed clean.
- Where pH exceeds the adhesive manufacturer's specified limit, treat the surface as directed by the adhesive manufacturer before proceeding.

3.2.5 Concrete surface quality and preparation

- The concrete surface must be checked for and be free of: cracks, crazing, dusting, rain damage, spalling, efflorescence, and blistering (NZS AS 1884:2013 Cl. 3.1.1.4 / NZS 3114).
- Burnished surfaces, laitance, curing compounds, waterproofing coatings, paints, oxides, wax crayons, and mark-out paints must all be removed by mechanical means (diamond grinding, scarifying, or captive shot blasting) before installation.
- After mechanical preparation, all loose material and residue must be removed by vacuum cleaning only.

3.2.6 Concrete joints (NZS AS 1884:2013 Appendix E — Informative)

Not all concrete joints are the same. The type of each joint present in the slab must be identified before installation commences.

- Movement joints (contraction joints, expansion joints, isolation joints): Resilient floor coverings must NOT be installed over these joints. These joints allow the slab to move — installing over them will result in adhesion failure. Install transition trims over movement joints.
- Non-movement joints (construction joints, shrinkage control joints): Resilient floor coverings may be installed over these joints, subject to the manufacturer's specifications, provided the joint is filled flush and smooth with a cementitious compound prior to laying. Note that show-through may still occur under certain lighting conditions post-installation.
- Where a cementitious underlayment is applied over any concrete joint, the joint must be flush and smooth at the time of installation (Cl. 3.1.1.4).

3.3 Timber Subfloors - Plywood and Particleboard

3.3.1 General requirements

- Timber subfloors must comply with NZS 3602 and NZS 3604. All timber framing supporting subfloors must also comply with NZS 3602 and NZS 3604.
- Subfloor ventilation: poorly ventilated spaces must not be permitted beneath floors constructed from or supported by timber. The minimum clearance between the underside of the lowest structural member and the ground is 400mm. Ventilation must comply with NZS 3604 and the NZBC. The ground beneath must be covered with a continuous 0.2mm minimum polythene vapour barrier lapped 200mm at joints (NZS AS 1884:2013 Cl. 3.2.4).
- Subfloor deflection: the subfloor must not deflect excessively under load. All deflection rates must be within the adhesive or underlayment manufacturer's specifications. Reinforce or re-fix any springy, squeaky, or deflecting areas before proceeding.

3.3.2 Moisture testing - timber (NZS AS 1884:2013 Appendix A2.4)

- Timber subfloors must be tested for moisture content using a calibrated electrical resistance moisture meter before installation proceeds (AS/NZS 1080.1 for timber; AS/NZS 2098.1 for plywood).
- The moisture content of the subfloor must be less than 16% throughout before any underlayment or floor covering is installed. A damp subfloor must be left to dry until this threshold is reached.

- Timber subfloors must be tested for moisture content using a calibrated electrical resistance moisture meter before installation proceeds (AS/NZS 1080.1 for timber; AS/NZS 2098.1 for plywood).
- The moisture content of the subfloor must be less than 16% throughout before any underlayment or floor covering is installed. A damp subfloor must be left to dry until this threshold is reached.
- The underside of the subfloor may also be inspected where accessible, particularly for platform construction that has been exposed to weather during the build.

3.3.3 Plywood subfloors

- Plywood must comply with AS/NZS 2269.0 — Tongue and Groove C/D Grade structural plywood — and be installed per NZS 3602 and NZS 3604.
- Minimum thickness: 15mm structural plywood. All sheet joints must be staggered (brick pattern), sanded flush, and gaps must not exceed 1mm.
- Where the subfloor has been exposed to weather during construction, the entire surface must be sanded to a firm, tight, plane surface before laying.
- All plywood subfloors to be used as a substrate for the LVT Dryback must be primed with the appropriate primer as specified by the adhesive manufacturer before adhesive is applied (NZS AS 1884:2013 Cl. 3.2.6.4(e)).

3.3.4 Particleboard subfloors

- Particleboard must comply with AS/NZS 1860 (Part 1) and AS/NZS 1859.1 — Class 1 particleboard — and be installed per NZS 3604. Minimum thickness: 19mm.
- Particleboard must be dry, sound, and free from swelling, delamination, or moisture damage. Particleboard subfloors are not suitable in bathrooms, laundries, or other areas of frequent wetting — use minimum 15mm plywood in these areas.
- All particleboard subfloors to be used as a substrate for the LVT Dryback must be primed with the appropriate primer as specified by the adhesive manufacturer before adhesive is applied (NZS AS 1884:2013 Cl. 3.2.6.4(e)).

3.3.5 Underlayment for LVT on timber subfloors

Where the LVT is to be adhered directly to a timber subfloor, an underlayment is required unless the subfloor surface is substantially free from grooves, ridges, gaps exceeding 1mm, holes, and similar imperfections (NZS AS 1884:2013 Cl. 1.4.3).

- Minimum underlayment thickness: 4.75mm.
- Approved underlayment types (NZS AS 1884:2013 Cl. 1.4.3(a)): Type RD standard hardboard per AS/NZS 1859.4; HP MDF per AS/NZS 1859.2; Grade C plywood per AS/NZS 2269.0; fibre cement sheet per AS/NZS 2908.2; or a self-levelling compound specifically designed for timber subfloors.
- Underlayment sheets must be installed in a staggered (brick) pattern, perpendicular to the direction of the subfloor. Joints in underlayment must not coincide with joints in the timber subfloor — a minimum offset of 50mm is required (NZS AS 1884:2013 Cl. 3.2.6.2).
- A compatible adhesive must be used in conjunction with mechanical fixings when installing underlayment over plywood or particleboard.
- Staples must be driven so the crown finishes approximately 0.5mm below the sheet surface. Nails must be driven absolutely flush. Failure to do this will cause nail and staple heads to show through the finished floor.
- All joints between underlayment sheets must be sanded flush. Use a sander fitted with effective dust collection. Clean by vacuum only — do not sweep.

3.3.6 Prohibited subfloor types

- Sand-cement screed subfloors: must NOT be used as an underlayment for resilient flooring. Sand-cement screed does not possess the required tensile and compressive strength for resilient floor covering installation (NZS AS 1884:2013 Cl. 3.3).
- Tongue and groove subfloors: resilient flooring must NOT be adhered directly to a tongue and groove subfloor. This substrate does not provide a suitable solid platform. A compliant underlayment (see 3.3.5) must be installed over all tongue and groove subfloors. The subfloor must also be moisture tested per 3.3.2 (NZS AS 1884:2013 Cl. 3.4).

3.4 Existing Floor Coverings

- Existing ceramic tile or stone tile: LVT Dryback and WPC Floating may be installed over existing hard tile provided the surface is structurally sound, flat to the tolerances in 3.1, and all grout lines are filled flush with an appropriate levelling compound. Unfilled grout lines will telegraph through the finished floor.
- Existing resilient sheet and tile: Existing resilient floor coverings are not a suitable surface for directly adhering new resilient coverings (NZS AS 1884:2013 Cl. 3.2.3). Existing resilient flooring must be removed, or a compliant underlayment installed over it, before the new floor is laid.
- Existing timber (solid or engineered): May be used as a substrate for WPC Floating provided it is sound and flat. For LVT Dryback, an underlayment or levelling compound will generally be required — assess surface condition per the criteria in 3.1.

IMPORTANT: Do not sand, dry sweep, or dry scrape any existing resilient floor covering, adhesive, or underlayment without first testing for asbestos — particularly in buildings constructed prior to 1990. Removal of asbestos-containing materials must be undertaken in accordance with the Health and Safety at Work (Asbestos) Regulations 2016 and WorkSafe NZ guidelines. Refer also to the Ministry for the Environment publication 'Asbestos and Man-Made Mineral Fibre Materials in Buildings: Practical Guidance, 2000' (DTER publication).

3.5 Direct Sunlight - LVT

LVT is susceptible to thermally induced dimensional change when exposed to direct sunlight.

- Avoid exposing LVT planks to direct sunlight for 24 hours prior to installation, during installation, and for 24 hours after installation (NZS AS 1884:2013 Cl. 5.6.1).
- In rooms where the installed floor will be regularly exposed to direct sunlight through glazing, an adhesive specifically rated for direct sunlight exposure must be used. Confirm suitability with the adhesive manufacturer.

4. Tools and Materials Required

4.1 Tools Required - Both Products

- Tape measure, chalk line, and pencil
- Utility knife with spare blades
- Pull bar and tapping block (rubber or composite — do not use metal)
- Flat pry bar
- 1800mm aluminium straightedge or spirit level
- 3-4-5 set square or large framing square
- Circular saw or mitre saw with fine-tooth blade (reverse blade for cleaner cuts)
- Jigsaw for irregular cuts around architraves and pipework
- Oscillating multi-tool for undercutting door frames and skirting boards
- PPE: safety glasses, hearing protection, dust mask (P2 rated minimum)

4.2 Additional Tools - LVT

- Minimum 45kg articulated roller (required per NZS AS 1884:2013 Cl. 5.6.4)
- Adhesive spreader / trowel: use manufacturer-specified notch size for the adhesive selected
- Clean cotton rags and appropriate solvent for adhesive clean-up
- Knee pads (extended floor-level work)

4.3 Materials Required - LVT

- Approved pressure-sensitive or hard-set adhesive suitable for LVT on the substrate type being used
- Portland cement-based patching and levelling compound (latex-modified recommended)
- Transition trims, threshold strips, and Scotia/quad moulding as required

4.4 Materials Required — WPC

- No additional adhesive required — UniClic floating installation
- No separate underlay required — 1.5mm IXPE is pre-attached to each plank
- Polythene vapour barrier — minimum 100mm, required across all subfloor types
- Expansion gap spacers (minimum 10mm gap at all fixed structures)
- Transition trims, threshold strips, and Scotia/quad moulding as required

Part D: Installation: LVT Glue-Down

5. LVT - Step-by-Step Installation

The LVT must be installed using a full-spread adhesive method. Do not use a floating or loose-lay method.

The adhesive bond is structural to the performance of this product.

Step 1 - Prepare the Subfloor

1. Ensure subfloor has passed all moisture, pH, and flatness checks as per Section 3.
2. Fill all holes, cracks, and low spots with Portland cement-based levelling compound. Allow to cure fully and sand flush.
3. Sweep or vacuum the subfloor thoroughly. Remove all dust, debris, and contaminants.

Step 2 - Establish Working Lines

1. Measure the room and find the centre point of both the length and width.
2. Snap chalk lines through the centre to create four equal quadrants. Check for square using the 3-4-5 method.
3. Dry-lay a row of planks along your working lines without adhesive to confirm layout and check cut sizes at perimeters
4. Adjust starting position if required to avoid narrow cuts at doorways or focal points.

Step 3 - Apply Adhesive

1. Select an approved pressure-sensitive or hard-set adhesive that is rated for LVT on your substrate type.
2. Apply adhesive using the manufacturer's recommended notched trowel in even, parallel strokes.
Work in manageable sections of approximately 4–6 m² at a time.
3. Allow adhesive to flash off (become tacky) per the adhesive manufacturer's open time specifications before laying planks.

NOTE: Open time varies by adhesive type, substrate porosity, temperature, and humidity. Always refer to the adhesive manufacturer's Technical Data Sheet. Do not lay planks into adhesive that has skinned over or dried completely.

Step 4 - Lay Planks

1. Starting from your chalk line, place the first plank firmly into the adhesive, pressing from the centre outward to prevent air entrapment.
2. Continue laying planks in a staggered brick-bond pattern. End joints must be staggered by a minimum of 200mm between adjacent rows.
3. Ensure all directional arrows on the plank backs are pointing in the same direction before pressing each plank down.
4. Roll each section with a minimum 45kg articulated roller immediately after laying — roll in both directions to ensure full adhesive transfer and eliminate air pockets (NZS AS 1884:2013 Cl. 5.6.4).
5. Wipe off any adhesive that squeezes up onto the plank surface immediately using a clean rag and appropriate solvent. Cured adhesive is extremely difficult to remove without damaging the wear layer.

NOTE: Do not allow foot traffic on newly laid planks for a minimum of 24 hours after installation. Keep the area at a stable temperature (18–29°C) and do not expose to moisture during the cure period.

Step 5 - Cutting and Fitting

1. Cut planks using a sharp utility knife and straightedge (score and snap), or a circular/mitre saw with a fine-tooth blade.
2. Undercut all door architraves and frames using an oscillating multi-tool or hand saw. The plank should slide freely under the frame — do not force or wedge.
3. For penetrations (pipes, vents), drill or cut the aperture approximately 10mm larger than the penetration diameter to allow for movement and fitting of cover plates.
4. Measure and cut each perimeter plank individually — walls are rarely perfectly parallel.

Step 6 - Perimeter Finishing

1. Cut LVT flush to perimeter edges, or run into a transition bar where it meets another flooring type.
2. Fit transition trims at doorways, changes in floor level, and where the floor meets a different flooring type. Reinstall skirting boards or reattach any removable trims to cover the perimeter edge.

Part E: Installation: WPC UniClic

6. WPC - Step-by-Step Installation

The WPC is installed as a floating floor using the UniClic locking profile. No adhesive is required. The 1.5mm IXPE underlay is pre-attached to each plank — do not install any additional underlay over or under the IXPE as this will compromise the locking joint and may void the warranty.

Step 1 - Prepare the Subfloor

1. Ensure subfloor has passed all moisture, pH, and flatness checks as per Section 3.
2. Fill all holes, cracks, and low spots with Portland cement-based levelling compound. Allow to cure fully and sand flush.
3. Install a minimum 100µm polyethylene sheet across the entire subfloor surface, lapped a minimum of 150mm at all joints and taped with moisture-resistant tape. This is required for all subfloor types, including concrete and timber.

Step 2 - Establish Working Lines and Direction

1. Determine plank direction — lay parallel to the longest wall or primary light source.
2. Measure the room width and divide by the plank width (228mm) to calculate the number of rows. If the final row would be less than 114mm (half a plank), adjust the first row width accordingly to balance the cut at both sides.
3. Snap a chalk working line parallel to the starting wall at the width of the first row, to maintain straight lines as you progress across the room.

Step 3 - Install Expansion Gaps

WPC floating floors expand and contract with temperature changes. Expansion gaps are critical to prevent buckling or joint failure.

- Maintain a minimum 10mm expansion gap at all fixed structures: walls, columns, door frames, hearths, kitchen plinths, and any other fixed objects.
- Use plastic spacers during installation to maintain consistent gap. Remove spacers as you progress — do not leave them in the floor.
- In rooms longer than 12 metres or wider than 8 metres, install an intermediate expansion joint with a T-moulding transition strip.

Step 4 - Lay First Row

1. Place the first plank in the starting corner with the groove side facing the wall (tongue facing outward). Insert spacers between the plank and the wall.
2. Continue along the first row, clicking planks end-to-end using the UniClic short-end joint. Use a pull bar and mallet to fully seat each joint — do not strike the plank surface directly.
3. Cut the final plank of the first row to length. The offcut must be a minimum of 300mm and must be used to start the second row (stagger joints by minimum 300mm between rows).

Step 5 - Cutting and Fitting

1. Angle the long-edge tongue of the new plank into the groove of the previous row at approximately 20–30 degrees, then press down to click the long-edge joint closed.
2. Connect the short-end joint of the new plank to the adjacent plank in the same row by angling and closing simultaneously, or use a tapping block to close the joint.
3. Check every 3–4 rows that the floor is running straight against your chalk working line. Correct any drift immediately — it will amplify across the floor if not caught early.
4. Work 2–3 cartons at a time to blend visual variation. Do not exhaust one carton before opening the next.

NOTE: If a joint is incorrectly seated, use a pull bar to carefully disassemble back to the affected plank. Do not force joints — forcing a misaligned joint will damage the UniClic locking profile and the plank cannot be reused.

Step 6 - Cutting and Fitting

1. Cut planks to length using a circular saw, mitre saw, or jigsaw. Always cut face-down when using a circular saw (blade tooth direction) to minimise chipping of the wear layer.
2. Undercut door architraves and frames to allow the plank to slide underneath freely. Do not notch or cut the plank to fit around the frame — this weakens the plank and looks unsightly.
3. For pipe penetrations, drill a hole at least 10mm larger than the pipe diameter. Make a diagonal cut from the edge of the hole to the nearest plank edge, slide the plank around the pipe, and glue the diagonal cut back together with PVA. Cover with a pipe collar.

Step 7 - Last Row

1. Measure the remaining gap to the wall. Subtract the 10mm expansion gap from this measurement — this is the cut width of the final row.
2. If the final row is very narrow (less than 50mm), adjust by trimming the first row wider to redistribute the cut.
3. Use a pull bar against the wall to click the final row into place without compressing the expansion gap.

Step 8 - Perimeter Finishing

- 1. Remove all expansion gap spacers.
- 2. If using Scotia or quad moulding to cover the expansion gap. Fix moulding to the wall or skirting board only — never nail or fix through the floor.
- 3. Undercut skirtings, or remove and reinstall skirtings allowing for 10mm expansion.
- 4. Make sure there is no debris from other trades impeding expansion before reinstalling skirtings.
- 5. Do not compress floor with reinstalled skirting's, make sure planks can move freely.
- 6. Fit transition trims at all doorways and junctions with other floor types. Use T-mouldings at intermediate expansion joints.
- 7. Reinstall skirting boards or door stops over the exposed edges where applicable.

Part F: Special Conditions

7. Underfloor Heating (UFH)

Both Rhino Premium Hardfloor LVT and WPC are compatible with underfloor heating systems. The following conditions must be met to maintain warranty validity.

- UFH system must be hydronic (wet) or electric low-temperature radiant. UFH must be fully commissioned and running for a minimum of 30 days before installation.
- Turn off the UFH system 48 hours before installation. Keep the system off during installation and for 48 hours after. Gradually return the system to operating temperature over 7 days after installation — don't exceed 2°C increase per day.
- Maximum subfloor surface temperature must not exceed 28°C at any time during use (NZS AS 1884:2013 Cl. 4.1.3).
- The maximum total floor R-value (thermal resistance) above the heating element, including the floor covering and all underlay layers, must not exceed R0.15 m²K/W. The WPC IXPE underlay has an R-value of approximately R0.04 — verify the total stack R-value with your UFH supplier.

8. Wet Areas — Bathrooms, Laundries, Kitchens

The WPC 12mm product is suitable for use in residential wet areas. The LVT is suitable for wet areas only when a moisture-tolerant adhesive is used and all perimeter junctions are sealed.

- All perimeter junctions between the floor and walls in wet areas must be sealed with a flexible, waterproof silicone sealant. Do not use plaster-based gap fillers.
- Expansion gaps must be maintained at all perimeters in wet areas — silicone must be applied into the gap, not used to bridge or fill it.
- Particleboard subfloors are not suitable beneath either product in bathrooms or laundries. Use plywood minimum 15mm in these areas.
- Ensure all waste, shower, and bath fixtures are properly waterproofed to NZBC E3 requirements before the floor is installed.

9. Stairs

Rhino Premium Hard floor can be used on stair treads and risers using the full-spread adhesive method.

- Apply adhesive to the full surface of each stair tread and riser. Use stair nosing profiles at the leading edge of each tread — do not leave an unsupported exposed edge.
- All stair nosing's must be mechanically fixed and adhesive-bonded. Check that all nosing's comply with NZBC D1 (Access Routes) slip resistance requirements.
- Roll each tread thoroughly after laying. Allow full adhesive cure (minimum 24 hours) before allowing foot traffic on stairs.
- If using WPC on stairs make sure top step uses the applicable type of stair nosing allowing for expansion on the top floor. Fixing the nosing but not the floor
- Please see Rhino premium hard flooring nosing's instructions for full details

Part F: Special Conditions

10. Relevant NZ Standards and Codes

The installer is responsible for ensuring that all installation work complies with the New Zealand Building Code (NZBC) and applicable New Zealand and Australian Standards. The following references are relevant to this installation:

NZS AS 1884:2013	Floor Coverings — Resilient Sheet and Tiles — Installation Practices (supersedes NZS/AS 1884:1985). Primary installation standard for this product.
NZBC Clause E3	Internal Moisture — controls moisture from internal sources including condensation and spillage
NZBC Clause F2	Hazardous Building Materials — relevant where existing flooring may contain asbestos
NZBC Clause D1	Access Routes — slip resistance requirements for flooring in public and accessible areas
NZS 3604	Timber-framed buildings — subfloor clearance, ventilation, and vapour barrier requirements
NZS 3602	Timber and wood-based products for use in building
NZS 3114	Specification for concrete surface finishes — surface quality requirements for concrete subfloors
NZS 3109	Concrete construction — joint requirements
AS/NZS 2269.0	Plywood — Structural (C/D Grade T&G for subfloors)
AS/NZS 1860 / 1859.1	Particleboard flooring — performance and installation requirements (Class 1)
AS/NZS 1859.4	Reconstituted wood panels — Type RD hardboard (underlayment)
AS/NZS 1859.2	Reconstituted wood panels — HP MDF (underlayment)
AS/NZS 2908.2	Fibre cement flat sheets (underlayment)

AS/NZS 1080.1	Timber moisture content — electrical resistance testing method
AS/NZS 2098.1	Plywood moisture content — test method
H&S at Work (Asbestos) Regs 2016	Removal and management of asbestos-containing materials
WorkSafe NZ	Guidelines for managing asbestos-containing materials in buildings

11. Disclaimer

Carpet Court NZ Ltd and the manufacturer accept no responsibility for installation failures resulting from failure to read or follow this guide, from non-compliant subfloor conditions, from improper acclimatisation, or from use of non-approved materials. The installer assumes all responsibility for final inspection and acceptance of the installation. If in doubt regarding any aspect of this installation, contact Carpet Court NZ Ltd before proceeding.

Carpet Court NZ Ltd
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