

NZBC Alternative Solution
FLOORCO laminate Flooring

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1. Purpose and Scope

This document presents an Alternative Solution to demonstrate compliance with the New Zealand Building Code (NZBC) for the use of laminate flooring systems as internal floor finishes, where Acceptable Solutions or Verification Methods are not directly applicable to the product as installed.

The scope of this Alternative Solution applies to laminate flooring used in internal residential and similar occupancies, when installed as part of the FLOORCO Overlay Laminate Flooring System and in accordance with the referenced installation and detailing documentation.

This assessment addresses the performance of the laminate flooring system in relation to durability, internal moisture management, fire performance, slip resistance, hazardous building materials, and airborne and impact sound, as applicable under the NZBC.

2. Product Description

The product is a laminate flooring system intended for use as an internal overlay floor finish. The flooring consists of multi-layer laminate boards comprising a decorative surface layer, a high-density fiberboard (HDF) core, and a stabilizing backing layer, manufactured in accordance with recognized laminate flooring standards.

The laminate flooring system is installed as a floating overlay floor over suitable substrates, incorporating a defined joint profile and perimeter detailing in accordance with the FLOORCO Overlay Laminate Flooring System Installation Guide.

The system may include the use of compatible underlay materials, moisture control layers, adhesives at critical junctions where specified, and wet area detailing as part of the overall installation system to achieve the intended performance within the defined scope of use.

3. This Alternative Solution relies on the following provisions of the New Zealand Building Code (NZBC):

- B2.3.1© – Durability
- E3.3.3, E3.3.5, E3.3.6 – Internal Moisture
- C3.4(B) – Fire Affecting Areas Beyond the Fire Source
- D1.3.3(D) – Access Routes (Slip Resistance)
- F2.3.1 – Hazardous Building Materials
- G6.3.1 – Airborne and Impact Sound

Compliance with each of the above NZBC clauses is demonstrated in accordance with the performance-based compliance pathway set out in Section 4 of this document, subject to the conditions and limitations stated herein.

3.1 Compliance with NZBC Clause E3 – Internal Moisture

Compliance with NZBC Clauses E3.3.3, E3.3.5, and E3.3.6 is achieved by demonstrating that the laminate flooring system, when installed as an internal overlay floor finish in accordance with the prescribed installation detailing, manages internal moisture in a manner that prevents moisture from penetrating into concealed spaces or causing damage to building elements.

Independent testing demonstrates that the assembled joints of the laminate flooring system resist topical moisture exposure without water migration under defined test conditions. This performance, in combination with the system installation requirements, supports effective management of incidental internal moisture exposure consistent with the intent of NZBC Clause E3.

When installed strictly in accordance with the FLOORCO Overlay Laminate Flooring System Installation Guide, including defined perimeter detailing, substrate preparation, and the use of compatible moisture control measures where specified, the laminate flooring system satisfies the performance requirements of NZBC Clause E3 within its intended scope of use.

3.2 Compliance with NZBC Clause B2 – Durability

Compliance with NZBC Clause B2.3.1© is achieved by demonstrating that the laminate flooring system, when used as an internal overlay floor finish, has a durability that meets or exceeds the minimum service life required for building elements with a durability requirement of not less than 5 years.

The laminate flooring system is manufactured in accordance with recognized laminate flooring product standards and is intended for internal residential and similar applications where it is subject to normal wear associated with its intended use.

When installed and maintained in accordance with the FLOORCO Overlay Laminate Flooring System Installation Guide and associated product documentation, the laminate flooring system is capable of maintaining its required performance for the duration of the specified minimum service life, consistent with the intent of NZBC Clause B2.

3.3 Compliance with NZBC Clause C3.4(B) – Fire Affecting Areas Beyond the Fire Source

Compliance with NZBC Clause C3.4(B) is achieved by demonstrating that the laminate flooring system meets the reaction-to-fire performance criteria specified for floor surface materials in areas beyond the fire source.

Independent reaction-to-fire testing, conducted in accordance with recognised international test methods, demonstrates that the laminate flooring system achieves a Critical Heat Flux (CHF) value that meets or exceeds the minimum performance requirements applicable under NZBC Clause C3.4(B).

This level of performance indicates that the laminate flooring system does not promote rapid fire spread across the floor surface when exposed to fire conditions beyond the fire source.

On this basis, and when installed and used within the defined scope set out in this document, the laminate flooring system satisfies the performance requirements of NZBC Clause C3.4(B).

3.4 Compliance with NZBC Clause D1.3.3(D) – Access Routes (Slip Resistance)

Compliance with NZBC Clause D1.3.3(d) is achieved by demonstrating that the laminate flooring system provides adequate slip resistance for use on access routes under normal internal conditions.

Independent slip resistance testing, conducted in accordance with recognized test methods, demonstrates that the laminate flooring system achieves a surface slip resistance value that meets or exceeds the minimum performance requirements applicable under NZBC Clause D1.3.3(d).

On this basis, and when installed and used within the defined scope set out in this document, the laminate flooring system satisfies the performance requirements of NZBC Clause D1.3.3(d).

3.5 Compliance with NZBC Clause F2.3.1 – Hazardous Building Materials

Compliance with NZBC Clause F2.3.1 is achieved by demonstrating that the laminate flooring system, when used as an internal floor finish, does not release hazardous substances in quantities that could pose a risk to the health of occupants.

Independent testing confirms that the laminate flooring system meets recognised limits for formaldehyde emissions and other relevant substances applicable to laminate flooring products intended for internal use.

Accordingly, when installed and used within the defined scope set out in this document, the laminate flooring system satisfies the performance requirements of NZBC Clause F2.3.1.

3.6 Compliance with NZBC Clause G6.3.1 – Airborne and Impact Sound (where applicable)

Compliance with NZBC Clause G6.3.1 is achieved by demonstrating that the laminate flooring system contributes to adequate control of airborne and impact transmission between habitable spaces.

Independent acoustic testing demonstrates that, when installed with the specified underlay system and in accordance with the referenced installation methodology, the laminate flooring system achieves airborne and impact sound insulation performance consistent with the requirements of NZBC Clause G6.3.1.

This Alternative Solution relies on the tested flooring and underlay system as a combined assembly. Variations to the specified underlay, substrate construction, or installation methodology may affect acoustic performance and require separate assessment.

On this basis, and when installed within the scope and conditions defined in this document, this Alternative Solution demonstrates compliance with the performance requirements of NZBC Clause G6.3.1.

4. Conditions and Limitations

This Alternative Solution is subject to the following conditions and limitations:

- i. The laminate flooring system shall be installed strictly in accordance with the FLOORCO Overlay Laminate Flooring System Installation Guide referenced in this document.
- ii. Use of the flooring system is limited to internal applications within the scope described in this document, including residential and similar occupancies.
- iii. The flooring system is intended for use as an internal floor finish under controlled environmental and moisture conditions consistent with its intended use.
- iv. Substrate preparation, moisture control measures, and environmental conditions shall comply with the requirements specified in the referenced supporting documentation.
- v. Any deviation from the specified installation methodology, system configuration, or stated scope of use requires separate assessment.

5. Referenced Supporting Documents

The following documents are referenced in support of this Alternative Solution and provide evidential information relevant to the assessment described in this document:

- Product Information Declarations (PIDs)
- Building Product Information Sheets (BPITS)
- FLOORCO Overlay Laminate Flooring System Installation Guide
- Installation Performance Compliance Design Guide
- Cleaning and Maintenance Guide
- Independent test reports issued by NZWTA
- Independent test reports issued by Intertek
- Independent test reports issued by SGS
- Other independent test reports issued by recognized international testing laboratories