**NEW ZEALAND BUILDING CODE DOCUMENTATION FOR FLOOR COVERINGS (FLOORSCAPE ENGINEERED TIMBER v6 – MULTI-LEVEL)**

**Consent detail:** CONSENT APPLICATION NUMBER / ADDRESS HERE

**Floorscape Product: Engineered Timber –** ENTER BRAND AND STYLE NAME HERE

COUNCIL NAME AND ADDRESS DETAIL HERE

Dear NAME,

Scope: Provide required documentation to provide evidence to satisfy the relevant clauses set out in Schedule 1 of New Zealand Building Code for the nominated Floor Covering in both single-level and multi-level buildings.

Composition of Floorscape Engineered Timber product:

Engineered Timber is comprised of four key layers:

* UV Cured Acrylic
* 7 coats of SRT UV lacquer.
* Oak Timber Top Layer
* Hardwood Code
* Made using plantation rubber wood resource.
* Backing Layer
* Plantation Spruce backing layer stabilises the

sandwich construction.



Oak Timber Top Layer

UV Cured Lacquer

Hardwood Core

Backing Layer

The New Zealand Building Code clauses and evidence relevant to this consent for Floorscape product are listed below:

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| --- | --- | --- | --- |
| **NZBC Code Clause** | **Compliance Information Used** | **How the information is used** | **Evidence** |
| **SINGLE-LEVEL**  E3-**Internal Moisture**  E3.3.3; E3.3.5 Re: Impervious and Easily cleaned surfaces  B2-**Durability**  B2.3.1 (c) 5 years  (i) Re: linings to satisfy the performance requirements with normal maintenance where they are easy to access and replace.  (ii) Re: failure is easily detected during normal use of the *building*. F2.- **Hazardous building materials** F2.3.1 Re: harmful emissions from materials used. (Formaldehyde is a naturally occurring chemical in wood and is commonly used in the production process of wood composite panels E.g. Cabinetry, Furniture, Plywood, Chipboard etc.)  **MULTI-LEVEL**  G6- **Airborne and impact sound**  G6 3.1 Sound Transmission no less than 55  G6 3.2 Impact Insulation no less than 55  C1- **Objectives of clauses C3** Fire affecting areas beyond the fire source  Re: multi-story dwelling – common areas  D1- **Access routes**  D1.3.3-Re: have adequate slip-resistance walking surfaces under all conditions of normal use | ISO4760 Topical Moisture Resistance – Assembles Joint  Manufacturer’s specifications Care and Maintenance instructions. In addition to the aminoplastic thermosetting resin surface (During the curing process of thermosetting adhesive resin, a three-dimensional network is built up to produce a insoluble resin) make-up requirements in EN13329 (see below) the easily cleaned surface is also enhanced with the application of heat cured lacquer.   DIN68861-2 Standard: Furniture surfaces - Behaviour at abrasion EN717-1 VOC Emission Standard: Wood-based Panels – Determination of Formaldehyde Release – Formaldehyde emission by the chamber method.  ISO140-7 Sound Transmission  and Insulation standard:  Acoustics — Rating of sound insulation in buildings and of building elements  ISO9239-1 Reaction to Fire  AS4586:2013 Slip Resistance | Independently tested in New Zealand by New Zealand Wool Testing Authority to demonstrate over a period of 24 hours that the sample joints tested did not allow water penetration through to the substrate.  Three boards are assembled together, and a 100mm diameter plastic cylinder is sealed to the board directly above the T-Joint. 100mm of water is then placed into the cylinder with 5 drops of colour dye. This is left for 24 hours, after which the cylinder is removed and the joint disassembled, to expose what if any moisture had passed through the board. This demonstrates that the surface of the board (the Engineered Timber and the board joints did not allow moisture penetration and can therefore be considered impervious.  The top surface wear layer is comprised of UV Cured Lacquer. This lacquer enables the surface to be cleaned easily. In effect only requiring a moistened cloth or sponge, or dirtier surfaces requiring a little water and gentle cleaning agent. The use of UV Cured Lacquer provides an easy cleaned surface as required by E3.3.3 and E3.3.5  Floorscape Care and Maintenance instructions to demonstrate that Floorscape product is Impervious and Easy to clean  Independent Taber testing for classification requirements to DIN68861-2 standard  S33 strips of sandpaper, 500g weight. Strips of sandpaper with defined grit are attached to the abrading wheels. The pressure applied to the test surface is 5.5 ± 0.2 Newton.  The strips are replaced every 500 revolutions. The test ends as soon as the first patch of wood becomes visible. This point is known as the “Initial Point” (“IP”). Floorscape Engineered Timber achieves >550 cycles result which meets this standard.  Independent testing to demonstrate E1 result which is designated under the lowest category for formaldehyde emission per EM717-1 international standard (Release ≤ 0.124 mg/m3 air, or ≤ 0.038 ppm). Worksafe NZ requirement = maximum ≤ 0.3 ppm, so the E1 maximum VOC emission result for standard EN717-1 meets this requirement.  \*Note - European Standard ‘E1’ result is different to E1 NZBC clause)  Sound Insulation is nominated in the NZBC clause G6 and requires an STC and IIS rating of no less than 55. We have independently tested to demonstrate that Sound Transmission Class and Impact Insulation Class shall be no less than 55 through ISO140-7 testing.  Note: ISO140-7 Test Method encompasses both Impact & Transmission Sound:  These ratings are then combined and divided by 2 to provide an average which per NZBC can be no less than 55.  In the certificate attached we have an L’nT value of 44 and IIC value of 65, added = 110. Divided by 2 = 55 so meets NMZBC requirement.  ISO9239-1 is nominated in the NZBC: clause C3 Fire affecting areas beyond the fire source  The attached independent test report confirms this this requirement has been achieved  AS4586 test is nominated in the acceptable solution clause D1.3.3 (d)  The attached independent test report confirms this requirement has been achieved | NZWTA Certification  Floorscape Care and Maintenance instructions to be followed by consumer  KLUMP Certification  CETEC VOC test report  SLR ISO140-7 Certification  AWTA Certification  ATTAR Certification |

Based on the above, and the certification that is provided attached to this document, we believe that this product is fit for purpose and meets the relevant clauses set out in Schedule 1 of the New Zealand Building Code.

Technical Data Sheets and Installation Instructions can be provided on request.

Thanks and Regards

**YOUR NAME AND SIGNATURE**