



## Alternative Solution for E3

### Scope of Use

The Alternative Solution for E3 may be used for:

- Single-Dwelling Household Unit
- Multi-Dwelling Household Unit

### Compliance Statement for E3

If designed, installed, and maintained in accordance with all requirements, timber flooring will comply with the E3 NZ Building Code clauses. This compliance statement is to meet the obligations under s14G(2) of the Building Act 2004. These guidelines are in line with the Australasian Timber Flooring Associations (ATFA) Engineered Flooring – Industry Standard (2018) which is the industry-based scheme for Engineered Timber Flooring in New Zealand.

As per Comment under 3.1.1 of E3/AS1 “Other floor finishes may also be capable of satisfying the performance for impervious and easily cleaned, if installed in a manner that prevents gaps or cracks within the finish and at any parts of its perimeter that are exposed to water splash, and/or if the surface is sealed with a suitable durable coating.”

This sentence can be broken into three parts to aid in demonstrating compliance:

#### **1. Installed in a manner that prevents gaps or cracks within the finish**

Glue down installation for all timber flooring products will achieve an Alternative Solution approval as it completely minimises the natural movement of the timber which prevents gaps or cracks within the finish.

#### **2. Installed in a manner that prevents gaps or cracks at any parts of its perimeter that are exposed to watersplash**

A specialised timber flooring acrylic-based flexible joint sealer is used to seal any parts of the perimeter that are exposed to water splash (including a minimum of 1.5m from all sanitary fixtures and sanitary appliances in open-plan rooms as per 3.1.1 of E3/AS1).

#### **3. Surface sealed with a suitable durable coating**

All our factory finished flooring is warrantied for use in wet areas. This includes both polyurethane (lacquer) and hardwax oil (including UV Oiled) finishes which are durable flooring finishes and easily cleaned.

Polyurethane finishes have had over 50 years of in-service history in kitchens and bathrooms in New Zealand residential and commercial buildings, and provided it is maintained as per ‘normal maintenance’ requirements of B2/AS1 2.1, a quality polyurethane finish would be classified as ‘a suitable durable coating’.

In addition to the above, BRANZ state on their website that “floor finishes that may be suitable for wet areas but are not listed in E3/AS1 (so must be consented as an alternative solution) include polyurethane-based systems”.

It is worth noting that water-based polyurethane coatings are included under point 2.3.3.1 of the code of practice for wet area membrane systems under 2.3.3.1 E3/AS2 as “water-borne polyurethane and polyurethane hybrids”.

Hardwax oil finishes - the waxes form an elastic, microporous surface which protects the wood from external moisture and abrasion. UV oil finishes - the UV Curing process in the factory gives UV Oiled Floors a consistent sealed coating. Oil soaks into the flooring during this finishing process, becoming crystallized within the wood fibres and leaving a transparent topcoat on the planks. This film is flexible and creates a soft matte finish that is water repellent.

### **Easily Cleaned**

Timber flooring is easily cleaned using a vacuum and a damp mop. Detailed care and maintenance information along with the correct care product are specified. Our recommended cleaning methods are comparable to those required for other floor finishes that are still classified as an Acceptable Solution – e.g., vinyl.

### **Additional requirements for Multi-Dwelling Household Units**

As per 2.0.1 of E3/AS1, if a sanitary fixture is located where accidental overflow could damage an adjoining household unit or other property, then ideally:

a) The exemption for household kitchen sinks and laundry tubs with integrated overflows (with a minimum flow rate of 0.25 l/s) shall apply.

If this exemption cannot be achieved, then:

b) Containment and floor wastes shall be provided

As per 2.1.1, satisfactory containment may be achieved by using impervious floor coverings which:

- b.a) Are continuous and covered or joints sealed where they meet the wall, and
- b.b) Extend to the doorway and all walls of the room, or to at least 1.5m from all sanitary fixtures and sanitary appliances in open-plan rooms.

Containment requirements have been met as per points 1 and 2 covered above. A floor waste can be fitted and sealed to fully satisfy point b).